

**UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS (BOSTON)**

In Re: BIOGEN IDEC, INC. SECURITIES
LITIGATION

1:05-cv-10400 (RCL)

**AFFIDAVIT OF KEVIN F. DAGES IN FURTHER SUPPORT
OF THE MOTION OF THE BIOGEN INSTITUTIONAL INVESTOR
GROUP FOR CONSOLIDATION, APPOINTMENT AS LEAD PLAINTIFF,
AND APPROVAL OF LEAD PLAINTIFF'S SELECTION OF CO-LEAD AND
LIAISON COUNSEL**

STATE OF ILLINOIS)
)
COUNTY OF COOK) ss.:

KEVIN F. DAGES declares and states as follows:

1. I am a principal of Chicago Partners, LLC (“Chicago Partners”). I submit this affidavit in order to describe certain analyses that Chicago Partners has performed involving the reported trading activity of certain candidates for Lead Plaintiff for the Class in the aforementioned securities litigation against Biogen Idec, Inc. (“Biogen” or “BIIB”), et al. as well as reported institutional holdings of BIIB stock and trading activity across the defined Class Period.

2. I have been asked by counsel for the Biogen Institutional Investor Group to review the trading data submitted by two competing investor groups, Biogen Institutional Investor Group and London Group (collectively referred to hereafter as “movant groups”), in their motions for appointment of Lead Plaintiff for this Class.¹ The specific entities that form the Biogen Institutional Investor Group are the New Jersey Carpenters Pension and Annuity Funds, Folksam Asset Management, Third Millennium Trading LLP, the Deerfield Beach Non-Uniformed Municipal Employees Retirement Plan, the Plumbers and Pipefitters Local No. 520 Pension Fund and Horatio Capital, LLC. The London Group consists of the London Pension Fund Authority and National Elevator Industry Pension Fund.

3. We have reviewed various court documents, public market information, and individual movant trading records (supplied by movants for Certification of Named Plaintiff

¹ “The PSLRA directs the Court to appoint the “most adequate plaintiff” as lead plaintiff for the Class. The “most adequate plaintiff” is the plaintiff with the “largest financial interest” in the relief sought by the class and that has also made a prima facie showing that it satisfies the typicality and adequacy elements of Rule 23.” (Reply Memorandum of Law in Further Support of the Motion of the Biogen Institutional Investor Group for Consolidation, Appointment as Lead Plaintiff, and Approval Lead Plaintiff’s Selection of Co-Lead and Liaison Counsel (“Reply Memorandum”) dated June 1, 2005, page 3.)

Pursuant to Federal Securities Laws) in addition to publicly available information concerning reported holdings and trading activity (such as Time and Quote data (“TAQ”)) for BIIB stock for purposes of this analysis.

Qualifications

4. I am a Certified Public Accountant, and I received my B.B.A. from the University of Notre Dame in 1979. A copy of my resume, which sets forth my employment history and relevant experience, is attached as **Appendix A** hereto. As described in my resume, I have served as a consulting and testifying expert on damages issues in a variety of litigation matters including numerous class actions.

5. Chicago Partners is an economics consulting firm that specializes in the application of accounting, economics, and finance to business consulting, legal, and regulatory issues. It employs approximately fifty professionals, including economists, accountants, financial analysts, computer programmers, and researchers. Chicago Partners regularly provides analysis of damages in either consulting or testimonial roles in litigation matters.

6. I have been assisted in this analysis by a team of professionals at Chicago Partners working under my direct supervision.

Analysis of Quarterly Institutional Holdings in BIIB Common Stock

7. Chicago Partners analyzed public institutional holdings data from ShareWorld, a Thomson Financial Company, to determine the reported level of institutional investment in BIIB common stock across the stated class period, February 18, 2004 to February 25, 2005.² ShareWorld provides data from Form 13-F filings submitted by institutional investors

² None of the movants are listed independently in the institutional data provided by ShareWorld.

to the SEC which detail the investors' share holdings in a particular stock as of the end of each quarterly reporting period.³

8. **Exhibit 1** shows the history of reported quarterly holdings of BIIB stock by its top 25 institutional holders (as of June 30, 2005) over the class period. **Exhibit 2** shows that BIIB holdings by these 25 institutions generally increased over the class period, as did the percentage of ownership by these institutions relative to the total number of shares outstanding.

9. **Exhibits 3a** through **3e** show the reported history of BIIB holdings by individual institutions of the top 25, broken into groups of five institutions. It is apparent that many of these institutions did not just buy and hold BIIB shares. Instead, large changes in quarterly holdings levels were prevalent with most of the top 25 institutional holders. In fact, all except one of these 25 institutions (Primecap Management Company) exhibited at least a 10% movement in holdings at some point during the class period relative to their ending volume at June 30, 2005.

10. Such volatility in holdings is consistent with academic research that shows that institutions often trade in and out of a given stock over a long period of time. For example, Wang (2003) notes that "[i]nstitutions hold about 50% of the market value of NYSE stocks and account for over 80% of the trading volume in recent years. The high propensity for institutions to trade is attributed to their portfolio rebalancing needs."⁴ Wang (2003) also states that institutions tend to trade more frequently than individuals, claiming, "[t]he frequent trading of institutions is in part a product of their extensive portfolio rebalancing needs. Institutional

³ Only institutional investors with over portfolios of over \$100 million in equity holdings are required to report their holdings to the SEC on a quarterly basis.

⁴ Wang, A.W., "Institutional Equity Flows, Liquidity Risk and Asset Pricing," University of California, Los Angeles, The Anderson Graduate School of Management Working Paper, January 2003, page 1 (internal citation omitted).

investors often engage in passive indexing or follow a constant portfolio allocation rule, which generate frequent portfolio-rebalancing trades.”⁵ Likewise, “[i]nstitutional investors’ tremendous equity positions lead to the general perception that they will trade frequently and in large order sizes....In fact, aware of the potential price concessions due to large order sizes, institutions typically divide one big trade into multiple smaller ones.”⁶

**Analysis of New York Stock Exchange Trades and Quotes Database (TAQ)
for BIIB Common Stock**

11. As part of our analysis, we also reviewed data from the New York Stock Exchange Trades and Quotes database (TAQ), which provides detailed intraday trading volume information for BIIB stock. Trades of large block sizes, usually greater than 1,000 shares, are generally considered evidence of institutional trading activity (as opposed to individual or retail trading activity).⁷

12. **Exhibit 4** summarizes the volume of trades of various block sizes in BIIB stock over the class period. About 38% of the total volume in BIIB during this period occurred in blocks of 1,000 shares or larger and 21% of the total volume occurred in blocks of 5,000 shares or larger. The following table illustrates the dollar investment in a 1,000 or 5,000 share block using the average closing price of BIIB stock for two months that roughly correspond to the relative trough and peak of BIIB stock price during the class period: March 2004 and January 2005:

⁵ Wang (2003), page 6.

⁶ Wang (2003), page 7.

⁷ See, for example, Wang (2003) and Lee, Charles M.C. and Balkrishna Radhakrishna, 2000, “Inferring investor behavior: Evidence from TORQ data,” *Journal of Financial Markets* 3, 83-111.

<u>Average Price During:</u>		<u>Size of Share Block</u>	
		1,000	5,000
March 2004	\$55.13	\$55,130	\$275,650
January 2005	\$65.16	\$65,160	\$325,800

13. **Exhibits 5a and 5b** show the percentages of block trades of 1,000 shares or larger and 5,000 shares or larger, respectively, in daily trading volume. The chart shows that while the proportion of block trades varied significantly on a daily basis, daily volume for blocks of 1,000 (5,000) or more shares averaged 36% (19%) of daily volume over the entire class period.

14. As **Exhibits 4, 5a and 5b** illustrate, large block trades were an important component of the trading volume in BIIB stock over the class period, suggesting that institutions actively engaged in trading BIIB stock on a daily basis.

Analysis of Class Movants' BIIB Common Stock Trade Sizes

15. In addition to using share numbers, dollar values are also often used as a proxy to identify institutional trades. Academic research has typically used either approximately 1,000 shares or \$10,000 as the respective trade size cutoffs.⁸ In general, with available trading data, dollar value cutoffs are preferred as they are directly related to the relative levels of trading capital at the disposal of an institutional trader versus an individual trader.⁹ However, a recent study disputes the uni-directional predictions of prior studies (i.e., that higher share or dollar levels are indicative of institutional traders), and finds evidence instead that institutional traders

⁸ Lee and Radhakrishna (2000).

⁹ Lee and Radhakrishna (2000) also find that dollar-based value cutoffs have a better ability to discriminate between individual and institutional traders than do share-based cutoffs, with higher dollar value trades more likely to have been entered by institutional investors.

are more likely to trade in either small (less than \$2,000) or large (greater than \$30,000) trading blocks, with individuals more likely to engage in medium value trades.¹⁰ Finally, it is important to examine both share and dollar trades because, as illustrated in the table above, a 1,000 share block of BIIB stock represents a trade totaling over \$55,000 during the class period.

16. Chicago Partners received documents containing trading records for the two movant groups who seek appointment as Lead Plaintiff.¹¹ First, we compared the total number of trades (both buys and sells) of BIIB stock entered into by each of the individual entities in the class period. Column [1] of **Exhibit 6a** shows that Biogen Institutional Investor Group had the highest number of individual trades in BIIB stock during this period -- a total of 842 trades in comparison to 20 by the London Group. In reviewing the trading data, however, we noted that some of the individual entities (e.g. Third Millennium Trading LLP and Horatio Capital) entered into multiple trades on the same day at the same price.¹²

17. In column [2] of **Exhibit 6a**, we also examined how the number of trades changes if we aggregate trades which occur on the same day at the same trading price. This analysis shows that the total trades by Biogen Institutional Investor group drops to 249, with reductions in trade quantities to approximately one-third of individual trades for Folksam Asset Management and Horatio Capital and one-quarter of individual trades for Third Millennium

¹⁰ The authors explain that their finding that institutions enter into small trades as “suggesting that institutions use these trades to conceal their activity or to round small positions up or down.” (Campbell, J., T. Ramadorai and T. Vuolteenaho, “Caught on Tape: Predicting Institutional Ownership with Order Flow,” Harvard University Working Paper, September 2004, pages 26-27.)

¹¹ Data was received for each movant group as part of each party’s Certification of Named Plaintiff Pursuant to Federal Securities Laws. Chicago Partners staff entered the data from hardcopies of the certification documents into Excel spreadsheets.

¹² This trading pattern may be due to traders executing separate trades at the same time for individual customers. Our review of the trading data also confirmed that while there are instances where an entity both bought and sold shares of Biogen stock in a given day (e.g., National Elevator Pension Fund, Horatio Capital and Third Millennium), none of the individual entities engaged in “in and out” trading (i.e., zeroed out the position they acquired in the same day).

Trading LLP. In contrast, the count of trades entered into by the London Group drops from 20 to 18 when we aggregate trades entered into on the same day at the same price.

18. **Exhibit 6b** illustrates the net daily holdings of BIIB stock for each movant group within the class period.¹³ The chart illustrates that the London Group made a number of discrete trades during the class period, while the Biogen Institutional Investor Group's trading pattern exhibits much more volatility similar to that expected of institutional investors.

19. We also analyze the trade sizes of BIIB stock by the individual entities within the two movant groups for the period February 18, 2004 through February 25, 2005, both in terms of share numbers and dollar amounts. The results are summarized in **Exhibits 7 and 8**. The analyses in these two exhibits use the two methods of aggregating individual trades illustrated in **Exhibit 6a**. That is, **Exhibits 7a and 7b** present analyses of trade size in terms of either shares or dollar amounts assuming no aggregation (i.e., data as presented in the trading statements), while **Exhibits 8a and 8b** assume that trades entered into on the same date at the same purchase/sale price are aggregated to represent a block trade.

20. **Exhibits 7a and 7b** illustrate that the London Group's fewer individual trades were generally made in large blocks both in terms of share size (75% over 1,000 shares) and dollar amount (95% over \$10,000). While Biogen Institutional Investor Group's high number of individual trades in BIIB stock were of a relatively lower share size (82% under 1,000 shares), the prevalence of large dollar trades (63% over \$10,000) is consistent with trading by an institutional investor.

21. **Exhibits 8a and 8b** illustrate how the individual trading analysis changes if one aggregates individual trades made on the same date at the same price into block trades.

¹³ For purposes of this illustration, we include movants' holdings at the beginning of the class period even though gains or losses on those shares are not included in losses claimed by each party.

The interpretation of the London Group's trading patterns is similar under this revised analysis. **Exhibit 8a** illustrates, however, that a large majority of the aggregated trades by the Biogen Institutional Investment Group (over 72%) are over 1,000 shares. And **Exhibit 8b** shows that the average aggregate trade size increases such that approximately 91% of trades are greater than \$10,000, consistent with trading behavior of an institutional investor.

Analysis of Class Movants' BIIB Common Stock Accounting Profit/Loss

22. The PSLRA directs the Court to appoint the "most adequate plaintiff" as lead plaintiff for the Class. The "most adequate plaintiff" is the plaintiff with the "largest financial interest" in the relief sought by the class and that has also made a prima facie showing that it satisfies the typicality and adequacy elements of Rule 23.¹⁴

23. Motion filings present calculations of the losses incurred by each individual institution in the two movant groups over the class period. The aggregate loss for each individual entity within the two movant groups is calculated as the sum of the aggregate sale price and an estimated aggregate value of shares held assuming a "hold price" of \$37.0870 per share,¹⁵ less the aggregate purchase price.

24. **Exhibit 9a** summarizes movants' calculations of estimated loss from transactions in BIIB common stock for the two class movant groups as presented in each party's certification statements. The analysis shows that the Biogen Institutional Investor Group incurred greater losses in the aggregate (\$5.0 million) than the London Group (\$3.8 million).

¹⁴ Opinion in *In re Goodyear Tire & Rubber Co. Sec. Litig.*, No. 03-2166 (N.D. Ohio May 12, 2004) (Adams, J.) ("Goodyear").

¹⁵ Class movants each reported their own calculations of accounting profit/loss in their motion filings and assumed a \$37.09 hold price in order to value shares retained beyond the class period. The \$37.09 price represents the average trading price for Biogen stock in the 60 calendar days beyond the class period instead of the traditional look-back period of 90 days. This shorter time period was apparently because 90 days had not yet elapsed when both parties filed their certification statements.

Furthermore, Third Millennium Trading LLP, which incurred the largest losses of the Biogen Institutional Investor Group members at \$3.1 million, incurred greater losses than each of the London Group members, the London Pension Fund Authority (\$2.1 million)¹⁶ and National Elevator Industry Pension Fund (\$1.7 million). Finally, the exhibit illustrates that Biogen Institutional Investment Group had a greater number of retained shares beyond the end of the class period (182,948) than did the London Group (84,909).

25. **Exhibit 9b** updates the estimated loss calculation in **Exhibit 9a** to use the actual 90-day average price of \$37.58 to value shares held or sold beyond the class period. Increasing the price used to value shares held by \$0.49 decreases the damages to those of the investor entities with shares retained after the end of the class period decreases marginally, however the Biogen Institutional Investment Group maintains a greater loss than the London Group (\$4.9 million compared with \$3.8 million).

Biogen Institutional Investor Group's Option Trades

26. I understand that the London Group alleges that Third Millennium's trading in options on BIIB stock renders it "inadequate and atypical under Rule 23."¹⁷ While data on the relative use of options within institutional investor portfolios is not available, there is

¹⁶ Based on a review of the London Pension Fund Authority's Investment Statistics for the period ending December 31, 2004, it appears that one of their most significant transactions during the class period (a purchase of 31,400 shares on September 30, 2004) was the result of a rebalancing of their portfolio as opposed to an active investment in Biogen based on information available to investors in the market. The fund's North American holdings are benchmarked to the S&P 500 or the FTSE World North America index. (See London Group certification statement and the London Pension Fund Authority's Investment Statistics for the period ending December 31, 2004, pages 2 and 15, attached as **Appendix B** to this affidavit.)

¹⁷ The London Group's Memorandum, page 3. In response, the affidavit of Neil Kazaross states that "Third Millennium's proprietary traders consciously engage in transactions based upon the price of a given company's stock or options, its reported financials, the Firm's proprietary methodologies and other publicly available information. In the instant case, Third Millennium's trade decisions were made by one its proprietary traders relying on the information provided to the market by the defendant company, Biogen, as well as other sources." (Reply Affidavit of Neil Kazaross, ¶7)

empirical evidence that institutional investors are responsible for an increasingly significant share of options trading volume. By early 2004, for example, the use of options by US institutional investors had increased significantly over the past several years such that it accounted for approximately one-half of US options trading volume.¹⁸

27. The stock trading records produced by Third Millennium on August 16, 2005 show a pre-class period share balance of 38,000.¹⁹ As of the day before the beginning of the class period (February 17, 2004), Third Millennium also held a short position of 310 February 2004 call options with an exercise price of \$35 per share, which resulted in the requirement that Third Millennium hold a long position in BIIB common stock of 31,023 shares.²⁰ As indicated in the summary of trades in Biogen Institutional Investor Group's certification statement, however, any gain or loss incurred by Third Millennium on these sales is excluded from their estimate of losses as these transactions relate to shares purchased outside of the class period.

28. Subsequent to submitting its trading records on August 16, 2005, both Third Millennium and Horatio Capital identified additional trades in BIIB options within the class period.²¹ We examined the options and stock trading data in order to determine Biogen Institutional Investor Group's net position in BIIB stock at various points in time across the class period. Our analysis confirmed that the existence of options trades by the Biogen Institutional

¹⁸ See, for example, "Hedging with options in vogue as bourses decline," Jeremy Grant. Financial Times, May 27, 2004 and "Options volume continues record-setting pace," Securities Week, Volume 31, No. 16, April 19, 2004.

¹⁹ Third Millennium certification statement.

²⁰ BIG 00000020. In other words, Third Millennium had written (sold) a call option which allows "the underlying stock [held by Third Millennium to be] called away or sold if it rises beyond the strike price of the calls sold." ("Options Report: Mutual Funds Take Options to Investors," Kopin Tan. Dow Jones Newswires, June 6, 2001.

²¹ These records were submitted to the London Group in a letter dated September 16, 2005 (BIG00000025 - BIG00000026). Horatio Capital also produced options trading records at this time (BIG00000027 - BIG00000028).

Investor Group does not make the group averse to a typical class member shareholder's interests. As illustrated in **Exhibit 6b**, the Biogen Institutional Investor Group maintained a net long position in Biogen stock throughout the class period.

29. Even accounting for the group's option positions, however, the group was harmed by inflation in the Biogen stock price. For example, as of December 16, 2004 the Biogen Institutional Investor group had bought 100 Jan-05 45 puts, sold 2,600 Jan-05 45 puts, sold 270 Jan-05 55 puts, sold 200 Jan-05 60 puts, bought 200 Jan-05 65 puts, sold 1,630 Jan-05 60 calls, sold 20 Jan-05 70 calls and bought 600 Dec-05 60 calls. At this same point in time, they held 157,591 shares of Biogen stock. Similarly, as of January 28, 2005 the Biogen Institutional Investor group had bought 10 Feb-05 60 calls, sold 500 Feb-05 60 calls, sold 125 Feb-05 60 puts, bought 30 Feb-05 65 calls, sold 30 Feb-05 65 calls, sold 1,800 Mar-05 55 puts, bought 1,500 Mar-05 60 puts, sold 405 Mar-05 60 puts, sold 1,500 Mar-05 65 calls and bought 1,500 Mar-05 70 calls. At this same point in time, they held 223,415 shares of Biogen stock.

30. Third Millennium has calculated that it generated a net gain of \$303,490 from trading in BIIB options during the class period.²² The complaints filed by the competing plaintiff groups in this case appear to seek recovery only for losses due to inflation in the common stock, and thus do not explicitly allow recovery for losses due to options trading.²³ Even if, however, one were to factor in options gains or losses, Third Millennium's net loss is reduced to \$2.7 million but the total loss for the Biogen Institutional Investor Group (\$4.6 million) still exceeds that of the London Group (\$3.8 million). Furthermore, while we do not have a similar calculation of the gains or losses incurred by Horatio Capital on its options trades,

²² Third Millennium Option Gain Calculation, attached as **Appendix C**. The Reply Affidavit of Neil Kazaross (¶8) contained a preliminary estimate that the options trades resulted in a gain of approximately \$500,000.

²³ Biogen Institutional Investor Group's Reply Memorandum, page 6.

Biogen Institutional Investor Group's total net losses are greater than those incurred by the London Group even if all \$504,767 of losses incurred by Horatio Capital are eliminated (i.e., Biogen Institutional Investor Group's net of options losses excluding Horatio Capital are \$4.1 million).

Conclusion


31. The analyses presented above illustrate that Biogen Institutional Investor Group's investment activities in BIIB common stock mimic other institutional investors of BIIB stock across the class period. Our review of the top 25 institutional investors in BIIB stock showed that these institutions did not just buy and hold BIIB shares. Instead, large swings in holdings levels were prevalent. Biogen Institutional Investor Group also traded frequently in shares of BIIB across the class period. This volatility in holdings is consistent with academic research that shows that institutions often trade in and out of a given stock over a long period of time.

32. Also, research has shown that institutions are more likely to trade in either small (less than \$2,000) or large (greater than 1,000 shares or \$30,000) blocks. Biogen Institutional Investor group entered into a large amount of small value trades, which when aggregated by date and purchase price exhibit the pattern of larger block trades. This trading behavior is consistent with classifying Biogen Institutional Investor Group as an institutional trader.

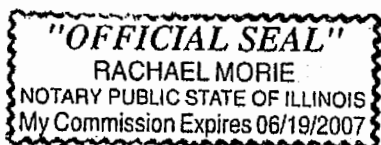
33. The fact that Biogen Institutional Investor Group members Third Millennium and Horatio Capital engaged in trades in options on Biogen stock does not render them atypical of institutional investors. Biogen Institutional Investor Group maintained a net long position in Biogen common stock throughout the class period, and thus their option

34. Finally, the Biogen Institutional Investor Group has demonstrated that it incurred the highest loss among the two movants for lead plaintiff status (even after netting gains from options trading) and held more shares beyond the end of the class period.

I declare under penalty of perjury that the foregoing is true and correct. Executed on September 21, 2005.



KEVIN F. DAGES



Rachael Morie

APPENDIX A

KEVIN F. DAGES

Principal
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Telephone: (312) 251-5916
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CURRENT EMPLOYMENT

CHICAGO PARTNERS, L.L.C.

Principal, (January, 1996 - present)

EDUCATION

B.B.A. (Accounting), University of Notre Dame, 1979

Certified Public Accountant, 1979

PRESENTATIONS AND SEMINARS

Designed and delivered numerous executive education and strategic financial planning seminars in the United States, England, Finland, and the Pacific Rim. Subjects included strategy valuation, incentive compensation, financial restructuring, and merger and acquisition analysis. Clients included leading financial institutions, accounting firms, and industrial companies.

Guest lecturer on valuation at the University of Chicago Business School and Chicago Kent School of Law; and on securities damage analysis at Brooklyn College School of Law. Past instructor in American Management Association Merger & Acquisition courses and Northwestern University Strategic Financial Planning Executive Program.

Speaker at regional CPA meetings and local Planning Forum sessions.

PROFESSIONAL AFFILIATIONS

American Institute of Certified Public Accountants.

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PROFESSIONAL EXPERIENCE

FORT DEARBORN PARTNERS, INC.

Co-founder and President, (1990 - December, 1995)

Co-founder and President of a financial and management consulting firm specializing in developing and implementing strategies for high growth companies, representing buyers and sellers of middle market companies in mergers and acquisitions, obtaining financing for and improving operations in underperforming companies, and providing business valuation consulting for litigation support.

Sample engagements included strategic planning for a \$100 million high growth specialty foods company; identification of competitive deficiencies and strategic planning for an industrial products distributor; analysis of losses due to a managing shareholder's embezzlement; strategic and operational planning for a printing and mailing company; identification and investigation of options for the largest unsecured credit in a bicycle manufacturing bankruptcy sale; and discounted cash flow analysis of damages in various securities fraud actions and two merger disputes.

THE ALCAR GROUP INC.

Vice President and Director of Consulting, (1984 - 1990)

Vice President and Director of Consulting for a financial consulting, software, and education firm specializing in shareholder value issues. Alcar clients included over 30% of the Fortune 500, major money center banks, and accounting firms.

Sample engagements included business valuation, capital structure analysis, and performance measurement/incentive reviews. Led Alcar team responsible for valuing a major apparel firm, including assisting the client in addressing valuation issues such as cost of capital and international valuation. Led Alcar team valuing a NYSE company in an appraisal dispute. Engaged in valuation planning for a \$2 billion heavy equipment manufacturer, addressing such valuation issues as divisional cost of capital estimates and residual value calculations. Assisted technology subsidiary of a major oil company in a due diligence review and valuation analysis of a laser company acquisition.

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PROFESSIONAL EXPERIENCE (cont.)

ABBOTT LABORATORIES

International Auditor and Diagnostic Division Sales Representative, (1981 - 1984)

Reviewed accounting and reporting systems at Abbott offices worldwide.
Received President's Award for outstanding performance.

GRANT THORNTON

Senior Auditor, (1979 - 1981)

Supervised and performed audits in a variety of industries including manufacturing, distribution, financial services, construction, not-for-profit, and government.

LITIGATION CONSULTING ENGAGEMENTS

Cede & Co. v. Technicolor, Inc., Case No. 7129 -- Court of Chancery of the State of Delaware -- Appraisal and Fraud Action. Led team supporting expert testimony on behalf of Respondents. The case established discounted cash flow as the appropriate measure for valuing a business. Professor Alfred Rappaport (Northwestern University) testified. Fraud action decided in favor of defendants. Retrial ordered in Appraisal Action. Led team supporting expert testimony of Professor Peter Easton at the retrial. Awaiting DE Supreme Court decision on appeal of appraisal retrial.

Sheldon Shore, et al v. Laidlaw, Inc., et al., Master File No. 91-CV-1829 -- United States District Court for the Eastern District of Pennsylvania -- 10b.5 securities action. Led team supporting expert testimony on behalf of Defendants. Prof. Abbie J. Smith (University of Chicago) testified in deposition. The case settled prior to trial.

Middleby and Co. v. Hussmann, Inc., Case No. 90-C-2744 and 91-C-3188 -- Seventh Circuit Court in Northern Illinois, August 1992 -- Merger dispute and jury trial. Testified on behalf of Plaintiffs at deposition and at trial. The jury awarded \$27 million in damages; the verdict was subsequently overturned; a retrial was ordered and the case settled prior to the second trial.

The Proctor & Gamble Company v. Mafco Holdings, Inc., Revlon, Inc., Revlon International Corporation, and Max Factor & Co., Arb. No. 13 181 00084 92, before the American Arbitration Association Commercial Arbitration Tribunal, November 18, 1992. Led team supporting expert testimony. Prof. Mark Zmijewski testified (University of Chicago) on behalf of the Defendant. Conducted a valuation analysis that examined the effect of accounting errors in a \$1.025 billion deal. Arbitrators ruled for Defendants.

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LITIGATION CONSULTING ENGAGEMENTS (cont.)

The Employees Retirement Systems of Alabama, et al. v. The May Department Stores Company, Inc., Case No. CV92-2726-R - Circuit Court for the Fifteenth Judicial Circuit, Montgomery County Alabama-- Jury trial involving early redemption of bonds. In conjunction with Professor Clifford Smith (University of Rochester) on behalf of Defendants, examined potential damage analysis involving early redemption of debt. Analysis included identifying applicable bond valuation issues and theory (especially for use in early plaintiff depositions), aggregating market and plaintiff specific bond valuation information, and developing a format for communicating these concepts and results to a jury. The case settled prior to trial.

Michael D. Wolin, et al. v. National Health Laboratories, Incorporated, et al., Case No. 659511 - United States District Court Southern California - 10b.5 securities action. Consulting expert to Defendants. Settled prior to trial.

In the Matter of the Application of Vision Hardware Group, Inc., Case No. 13385 -- Court of Chancery of the State of Delaware - Section 262 Appraisal case, April 1995. Testified on behalf of Respondents (shareholders) in deposition and at trial. This case is unusual in that the company filed for the appraisal following a contested recapitalization and merger. The Chancellor found in favor of the company.

John Healy vs. Owens-Corning Fiberglass, et al. No. 83 L 21031 - Circuit Court of Cook County, Illinois County Department - Law Division, May 1994. Testified in deposition and at trial on behalf of Plaintiffs. Testimony was limited to issues to consider in calculating punitive damages.

Arbitrium (Cayman Islands) Handels AG and Miklos Vendel v. H. Frederick Johnston, Sandra Spillane and Technicorp International II, Inc., Case No. 13506 - Court of Chancery of the State of Delaware - Section 225 matter. Led team supporting expert testimony on behalf of Plaintiffs. The Vice Chancellor determined our client owned greater than 70% of outstanding stock and ruled his shareholder votes and board actions were valid and binding.

Gus Stathis v. Geldermann, Inc. and Geldermann Securities Inc., Case No. 95-L-509 - Circuit Court of Cook County - Jury trial involving breach of contract, diversion of corporate opportunity and constructive fraud. Led team supporting expert testimony on behalf of Defendants.

SSMC Inc. N.V. Plaintiff/Counterclaim - defendant, v. Singer Furniture Company, et al., Case No. 93-0952-R - United States District Court for the Western District of Virginia Roanoke Division - Fraud action. Led team supporting expert testimony on behalf of SSMC. Prof. Michael T. Maloney (Clemson University) testified in deposition.

Danaher Corporation and WEC Corporation v. Acme - Cleveland Corporation, et al., Case No. C2-96-0247 - United States District Court for the Western District of Ohio Eastern Division - Temporary Restraining Order hearing involving the Control Share Acquisition Act (Ohio) and the Ohio Take-Over Act. Led team supporting expert testimony for Danaher Corporation. Prof. Rene Stulz (Ohio State) testified in deposition. Case dismissed with consummation of the merger.

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LITIGATION CONSULTING ENGAGEMENTS (cont.)

Janet Zimek, et al. v. Centel Corporation, et al., Case No. 92-C-3551 (and related cases) - United States District Court for the Northern District of Illinois Eastern Division - 10b.5 securities action. Served as consulting expert for the Defendants. Defendants won on summary judgment.

NRG Barriers, Inc. v. Frederick T. Jelin, et al., Case No. 15013 - Court of Chancery of the State of Delaware, July 1996 - Fraud action. Served as consulting and testifying expert for the Plaintiffs. The Vice Chancellor found in favor of the company.

Arthur Kapit, et al. v. Victor M.G. Chaltiel, et al., Case No. SACV-94-893-LHM (EEX) - United States District Court of Central District of California - 10b.5 securities action on behalf of Abbey Healthcare Group, Inc. Served as consulting expert for Defendants. Settled prior to trial.

In Re: Checkers Securities Litigation, Case No. 93-1749-CIV.-T-17A - United States District Court, for the Middle District of Florida, Tampa Division, 10b.5 securities action. Served as consulting expert for Defendants. Settled prior to trial.

Charles L. Grimes v. Vitalink Communications Corporation, Case No. 12334 - Court of Chancery of the State of Delaware, November 1996 - Appraisal action seeking to determine fair value of Petitioners' shares based on the Corporation's future cash flows. Testified in deposition and at trial as valuation expert for the Respondents. The Chancellor found that the Respondent's cash flow analysis accurately reflected the Corporation's value on the date of the merger. The Chancellor's opinion was affirmed by the Delaware Supreme Court.

In Re: Woolworth Corporation Securities Class Action Litigation Master File No. 94 Civ. 2217 (RO) - United States District Court Southern District of New York - 10b.5 securities action. Served as consulting expert to Defendants on damages. Settled during mediation prior to trial.

In Re: Arbitration between Vitafort International Corporation and Keebler Company, Case No. 74-488-01081-96, before the American Arbitration Association (San Francisco). Lost profits claim as a result of alleged co-packer manufacturing problems with a new fat-free cake product. Led team supporting Professor Mark Zmijewski's rebuttal testimony on behalf of the co-packer (Keebler). Arbitrator found in favor of plaintiffs and awarded approximately 50% of plaintiff's original damage estimate.

Carlton Investments, derivatively on behalf of TLC Beatrice International Holdings, Inc. v. TLC Beatrice International Holdings, Inc., et al., Case No. 13950 - Court of Chancery of the State of Delaware. Derivative action on behalf of the company to recover alleged damages including, a \$22.1 million retroactive "compensation package" paid to the late CEO and principal stockholder. The court approved the TLC Beatrice Board's Special Litigation Committee's settlement of the Delaware derivative action. Following the court's decision, plaintiff shareholders, the company and the CEO's estate reached a global settlement covering the Delaware derivative action, a related New York breach of contract and the company's challenge to the Presidential Life settlement.

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LITIGATION CONSULTING ENGAGEMENTS (cont.)

State of Wisconsin Investment Board & Cede & Co. v. Corporate Software, Inc., Case No. 13519 – Court of Chancery of the State of Delaware. Appraisal action. Served as consulting expert for Petitioners. Settled prior to trial.

Richard C. Goodwin v. LIVE Entertainment Inc., et al., C.A. No. 15765 NC – Court of Chancery of the State of Delaware. Breach of Fiduciary Duty action in a shareholders buyout. Served as consulting expert for Plaintiffs. Case dismissed on summary judgement.

Union Pacific Resources Group, Inc. et al. v. Pennzoil Company, et al., Civil Action No. 15755 – Court of Chancery of State of Delaware. Breach of Fiduciary duty action resulting from Pennzoil's refusal to nullify anti-takeover measures aimed at thwarting UPRG's tender offer and merger. Served as consulting expert for UPRG. UPRG withdrew their tender offer immediately prior to trial.

MetalClad Corporation v. The United Mexican States, Case No. ARB(AF)/97/1 – Before the Honorable Tribunal Established Pursuant to Chapter Eleven of The North American Free Trade Agreement (NAFTA). Provided expert testimony (along with Professor Mark Zmijewski) on behalf of the Government of Mexico in a NAFTA arbitration alleging an illegal "taking" by Mexico of a not fully-permitted hazardous waste site. Claimant (MetalClad) alleges \$125 million in damages based on a purported (and disputed) \$20 million "investment." Tribunal awarded claimants \$16.7 million including interest.

Safety-Kleen Corporation v. Laidlaw Environmental Services, Inc., Docket No. 97 C 8003 – In the United States District Court Northern District of Illinois - Eastern Division. Led team that provided consulting (Dages) and expert testimony (Professors Robert Topel and Mark Zmijewski) in a Wisconsin anti-takeover action.

In re Horizon/CMS Healthcare Corporation Securities Litigation, Class Action No. CIV 96-442 BB/LCS – United States District Court for the District of New Mexico. Provided advice and analysis to the single largest shareholder (State of Wisconsin Investment Board) in a 10b.5 settlement regarding a proposed reduction in attorneys' fees. The Court reduced the proposed Plaintiffs' attorneys' fees thereby increasing the portion of the settlement to the class.

In Re Waste Management, Inc. Securities Litigation, Master File No. 97 C 7709 – In the United States District Court for the Northern District of Illinois - Eastern Division, 10b.5 securities action and various asset purchase cases. Serving as consulting expert on behalf of Defendants. Settled prior to trial.

Daniel R. McLean and Francis I. Butler v. Alloyd Co., Inc., et al., No. 95 CH 1422 – In the Circuit Court of Cook County, Illinois County Department, Law Division. Action for wrongful dismissal and inadequate compensation for shares redeemed from two former officers five years following a leveraged acquisition. Testified in deposition and at trial on behalf of the Defendants. The jury found one instance of wrongful dismissal and awarded lost wages and two different redemption values for shares redeemed.

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LITIGATION CONSULTING ENGAGEMENTS (cont.)

Arthur L. Gustafson, et al. v. Alloyd Co., Inc., et al., No. 93 L 6341 - In the Circuit Court of Cook County, Illinois County Department, Law Division. Breach of contract and fraud action alleging a \$10-\$19 million overpayment by Buyers based on Sellers misrepresentations and breaches. Fiscal year audit dated nine days following deal closing indicated greater than 30% misstatement in current year EBIT. Discovery indicated Seller's CFO (a 10% shareholder) had knowledge of a material discrepancy in the reported inventory balance during due diligence. Testified in deposition and at trial on behalf of the Defendants (Buyers). The jury found for the plaintiffs (Sellers).

B. Peter Knudson v. Samsonite Corporation, et al., Case No. 98CV2210 - District Court, City and County of Denver, Colorado, 10b.5 securities action. Served as consulting expert on behalf of Defendants. Settled prior to trial.

Merisel, Inc. v. Turnberry Capital Management, L.P., et al., C.A. No. 15906 NC - Court of Chancery of State of Delaware. Serving as rebuttal damages expert on behalf of Merisel against Counterclaimant Turnberry Capital Management. Testified in deposition. Settled prior to trial.

In Re: Credit Acceptance Corporation Securities Litigation, Consolidated Master File No. 98-70417 - United States District Court for the Eastern District of Michigan, Southern Division, 10b.5 securities action. Served as consulting expert on behalf of Defendants. Case dismissed on summary judgement.

Robert Clark v. National Techteam, Inc., et al., Case No. 97-60248 - United States District Court for the Eastern District of Michigan, 10b.5 securities action. Served as consulting expert on behalf of Defendants. Settled prior to trial.

In Re Mafco Holdings Securities Litigation - United States District Court, Southern District of New York, 10b.5 securities action. Served as consulting expert on behalf of Defendants. Case dismissed on summary judgement.

Cantor Fitzgerald, L.P., v. Iris Cantor, et al., C.A. No. 16297 - Court of Chancery of the State of Delaware in and for New Castle County. Served as consulting expert of behalf of Plaintiff.

J.G. Juran, et al. v. Bastion Capital Fund, L.P., et al., C.A. No. 16464 - Court of Chancery of the State of Delaware in and for New Castle County. Served as consulting and testifying expert on behalf of Defendants.

United Rentals, Inc. v. Rental Services, Inc. and NationsRent, Inc. - Court of Chancery of the State of Delaware. Provided affidavit regarding break-up fee data on behalf of Plaintiff, United Rentals, Inc.

In Re: Arbitration between Sara Lee Corporation and totes Isotoner Holdings Corporation. Consulting engagement on behalf of Sara Lee Corporation with regard to sale of the Aris/Isotoner business to totes.

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LITIGATION CONSULTING ENGAGEMENTS (cont.)

Sungard Recovery Services, Inc. v. Comdisco, Inc. v. Data Assurance Corporation, Case No. 97-WM-389 - United States District Court for the District of Colorado. Served as consulting expert on behalf of Comdisco, Inc. as Defendant and Counterclaim Plaintiff. Testified in deposition.

Carol Kropinski, et al. v. Johnson & Johnson, Docket No. L8886/96 - Superior Court of New Jersey Law Division, Camden County. Served as consultant to Plaintiff on damages in consumer fraud class action litigation. Settled prior to trial.

In Re Sunbeam Corporation Securities Litigation - United States District Court, Southern District of Florida, 10b.5 securities action. Served as consulting expert on behalf of Defendants.

LaSalle National Bank v. R.O. Perelman, et al., No. 97-645 (RRM) - United States District Court of Delaware, Noteholders litigation. Served as consulting expert on behalf of Defendants. Case dismissed on summary judgment.

Danis v. USN Communications, Inc., et al., No. 98 C 7482 - United States District Court for the Northern District of Illinois Eastern Division, 10b.5 securities action. Served as consulting expert on behalf of Defendants.

Anthony R. Gold, PC Brand, Inc., Software Communications, Inc., v Ziff Communications Company, d/b/a Ziff-Davis Publishing Case No. 01 L 9518 - In the Circuit Court of Cook County, Illinois County Department - Law Division - Breach of contract. Served as testifying expert on remand for recalculation of damages resulting from a breach of contract. Settled prior to trial.

Greenlight Capital Qualified, L.P., Greenlight Capital, L.P., and Greenlight Capital Offshore, Ltd., v. Emerging Communications, Inc., Case No. 16415 - Delaware Chancery Court- Appraisal action. Led team supporting Professor Mark Zmijewski's expert testimony on behalf of Petitioners. Vice Chancellor found the fair value to be \$38.05 per share on the merger date vs the \$10.25 merger price.

IBP, Inc., v. Tyson Foods, Inc. and Lasso Acquisition Corporation Case No. 18373 - Delaware Chancery Court- Breach of contract in a takeover/merger. Served as consulting expert on behalf of defendants.

Digex, Inc. Shareholders Litigation Case no. 18336 NC - Delaware Chancery Court- Class and shareholder derivative action. Provided affidavit on value of settlement consideration. Settlement approved.

Analytical Surveys, Inc. Securities Litigation Case No. IP00-C-0201-M/S - United States District Court for the Southern District of Indiana Indianapolis Division - 10b-5 securities action. Served as a consulting expert on damages in behalf of the defendants. Settled prior to trial.

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LITIGATION CONSULTING ENGAGEMENTS (cont.)

Chesapeake Corporation and Sheffield, Inc., v. Marc P. Shore, Howard M. Liebman, Andrew N. Shore, Leonard S. Verebay, Virginia A. Kamsky, Sharon R. Fairley, R. Timothy O'Donnell, Kevin J. Bannon, William P. Weidner, and Shorewood Packaging Corporation Case No.

CV17626 NC - Delaware Chancery Court - Testified in deposition and at trial on behalf of defendants. Takeover litigation surrounding Chesapeake's bid for Shorewood.

IAS Securities LLP v. Merrill Lynch & Co., Inc. Del. Super. Ct., C.A. No. 99C-07-143 (ISS) - In the Superior Court of the State of Delaware in and for New Castle County - Class Action Complaint Non-Arbitration Case. Served as an expert on behalf of defendants. Settled prior to trial.

Alcatel Alsthom Securities Litigation MDL Docket No. 1263 - In the United States District Court for the Eastern District of Texas Sherman Division - 10b-5 securities action. Led team supporting Professor Robert Korajczyk, who filed a report on behalf of defendants. Settled prior to trial.

Prescott Group Small Cap, L.P., Phil & Jana Frohlich, Phil D. Frohlich, Ira, Leroy Warren Brewer, and Cede & Co., v. The Coleman Company, Inc. C.A. No. 17802 NC - In the Court of Chancery of the State of Delaware In and for New Castle County - appraisal action. Led team supporting expert testimony on behalf of Respondents.

Citibank, N.A. and Citibank Canada, v. Itochu International Inc., and III Holding Inc. f/k/a Copelco Financial Services Group, Inc., Case No. 01-CV-6007 (GBD/DF) - United States District Court for the Southern District of New York - transferred to New York State Court. Breach of contract action involving the purchase of a leasing business by Citibank and subsequent discovery of reporting errors. Led team supporting the expert witness testimony of Professors' Dave Ricchiute and Clifford Smith. Settled prior to trial.

Solo Cup Company, v. Dennis Mehiel, as Stockholders' Representative under the Merger Agreement between Solo Cup Company, Solo Acquisition Corp. and SF Holdings Group, Inc. Case No. 51 489 Y 01966 04 - Before the American Arbitration Association. Breach of warranty and fraud action involving the purchase of Sweetheart Holdings by Solo Cup. In discovery.

In Re Healthsouth Corp. ERISA Litigation. Consolidated Case No. CV-03-BE-1700-S - In the United States District Court for the Northern District of Alabama Southern Division. Serving as the company's consulting expert on damages. Settled and awaiting Court approval of the settlement.

In Re Healthsouth Corporation Stockholder Litigation Case No. CV-03-BE-1501-S - In the United States District Court Northern District of Alabama Southern Division. Serving as the company's consulting expert on damages.

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LITIGATION CONSULTING ENGAGEMENTS (cont.)

In Re Williams Securities Litigation Case No. 02-CV-72H(M) - United States District Court for the Northern District of Oklahoma. Served as the company's consulting expert on damages.

United States Securities and Exchange Commission In the Matter of General Mills, Inc. File No. C-03760-A. Served as a member of the consulting team working on behalf of the company to investigate issues raised in the SEC's investigation and to respond to the SEC issues. Following investigation the SEC closed the matter.

In The International Court of Arbitration of the International Chamber of Commerce and In the Matter of an Arbitration BNP Paribas, Arval PHH Holdings (UK) Limited, Arval PHH Holdings and Avis Group Holdings, Inc. and VMS (Bermuda) Holdings Ltd. Arbitration concerning the sale of a subsidiary of Avis to BNP Paribas. Led team supporting the expert witness testimony of Professor Steve Hanke on behalf of respondent Avis. Awaiting the panel's decision.

Exhibit 1

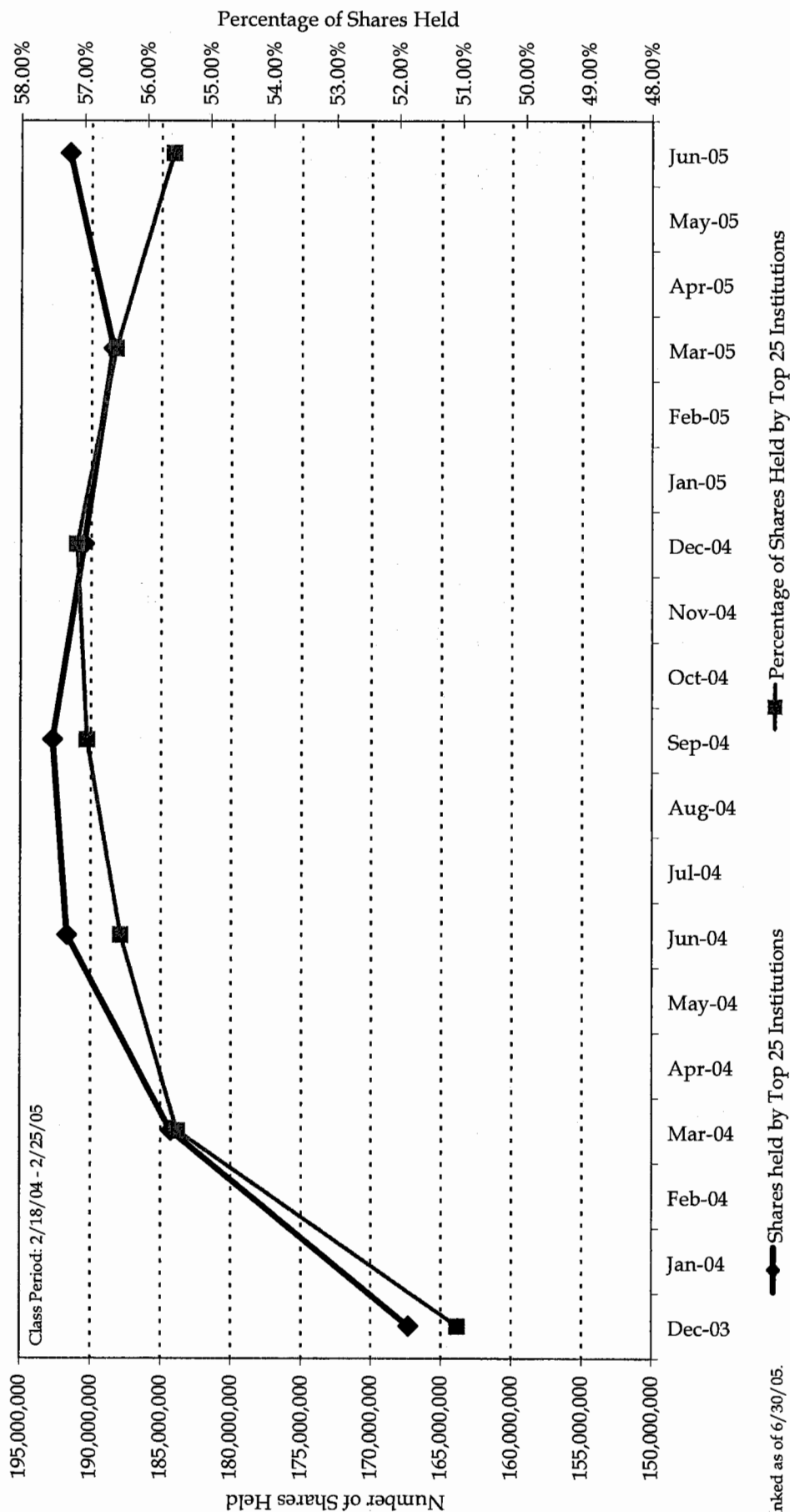
History of Biogen Holdings by the Top 25 Institutional Holders (Ranked as of 6/30/05) (Class Period 2/18/04 - 2/25/05)

Institution Name	12/31/03	3/31/04	6/30/04	9/30/04	12/31/04	3/31/05	6/30/05
1 CITIGROUP INC	28,018,392	28,018,392	31,329,571	30,576,028	29,698,908	35,405,999	37,966,061
2 PRIMECAP MANAGEMENT COMPANY	32,473,173	32,330,505	31,534,245	31,622,778	32,038,825	31,884,425	32,465,722
3 CAPITAL RESEARCH & MGMT CO	15,391,000	23,916,000	24,166,000	25,241,000	18,296,000	18,358,000	18,994,250
4 BARCLAYS BANK PLC	11,688,993	11,391,828	12,446,421	12,969,001	12,944,392	13,694,527	14,141,367
5 FIDELITY MANAGEMENT & RESEARCH	8,076,571	17,572,613	25,436,083	25,054,216	25,575,672	13,639,293	10,927,226
6 STATE STR CORPORATION	9,261,902	8,466,140	9,544,937	10,009,212	9,384,964	9,604,135	9,082,407
7 VANGUARD GROUP, INC.	6,549,935	6,766,389	7,209,027	7,316,347	7,256,499	7,437,011	7,801,867
8 IRIIDIAN ASSET MANAGEMENT LLC	4,097,846	3,246,321	524,435	403,855	400,015	6,933,265	6,999,870
9 WELLINGTON MANAGEMENT CO, LLP	6,200,753	5,588,503	5,450,353	5,479,853	5,444,053	5,415,653	5,022,353
10 DEUTSCHE BK AKTIEGESELLSCHAFT	8,108,516	6,908,753	3,935,066	3,526,681	4,680,213	2,985,663	4,744,479
11 MELLON BANK NA	2,223,348	2,371,246	2,475,210	2,701,911	2,608,081	4,718,119	4,433,193
12 NORTHERN TRUST CORP	3,598,585	3,599,876	3,937,962	4,223,440	4,189,525	4,238,263	4,123,213
13 RCM CAPITAL MANAGEMENT LLC	1,579,281	2,544,398	3,656,795	3,510,981	5,047,028	4,831,445	3,571,630
14 PUTNAM INVESTMENT MGMT, L.L.C.	7,604,141	5,035,515	3,334,673	3,157,714	2,587,908	3,307,024	3,335,603
15 TUDOR INVESTMENT CORPORATION							3,208,600
16 BB BIOTECH AG	4,150,300	2,600,000	2,600,000	2,600,000	2,180,913	2,500,000	3,156,000
17 MSDW & COMPANY	0	7,221,453	6,566,041	5,974,465	4,707,983	3,572,167	3,046,520
18 MES INVESTMENT MANAGEMENT	1,437,726	680,506	716,552	0	410,120	2,540,570	3,041,120
19 T. ROWE PRICE ASSOCIATES, INC.	3,930,188	2,286,658	2,283,358	2,299,327	3,838,320	2,839,450	2,921,400
20 COLLEGE RETIRE EQUITIES	1,734,830	2,407,348	4,347,353	4,512,564	5,798,498	2,609,179	2,398,023
21 RIVERSOURCE INVESTMENTS, LLC	3,722,467	6,593,350	5,294,651	6,459,899	6,935,932	3,843,071	2,244,584
22 BNP PARIBAS ARBITRAGE SA	1,006,045	236,136	580,110	475,249	603,862	1,973,704	2,113,016
23 FRANKLIN RESOURCES INC	3,998,896	1,705,382	1,629,932	1,379,115	2,130,563	2,341,304	2,079,299
24 CREDIT SUISSE FIRST BOSTON LLC	438,159	484,553	628,882	586,734	1,177,561	1,557,593	1,926,283
25 J.P. MORGAN CHASE & CO.	2,024,578	2,331,234	2,077,836	2,648,488	2,571,623	2,234,065	1,816,114
Shares held by Top 25 Institutions	167,315,625	184,303,099	191,705,493	192,728,488	190,507,458	188,463,925	191,560,200
Shares Held by All Institutions	260,502,569	274,455,558	283,915,717	282,663,208	277,530,723	259,630,730	241,693,462
Total Shares Outstanding	327,595,000	331,997,000	339,759,000	338,393,000	333,552,000	333,552,000	344,628,000
Percentage of Shares Held by Top 25 Institutions	51.07%	55.51%	56.42%	56.95%	57.11%	56.50%	55.58%
Percentage of Shares Held by All Institutions	79.52%	82.67%	83.56%	83.53%	83.20%	77.84%	70.13%

Source: ShareWorld Institutional Investor data for BIIB.

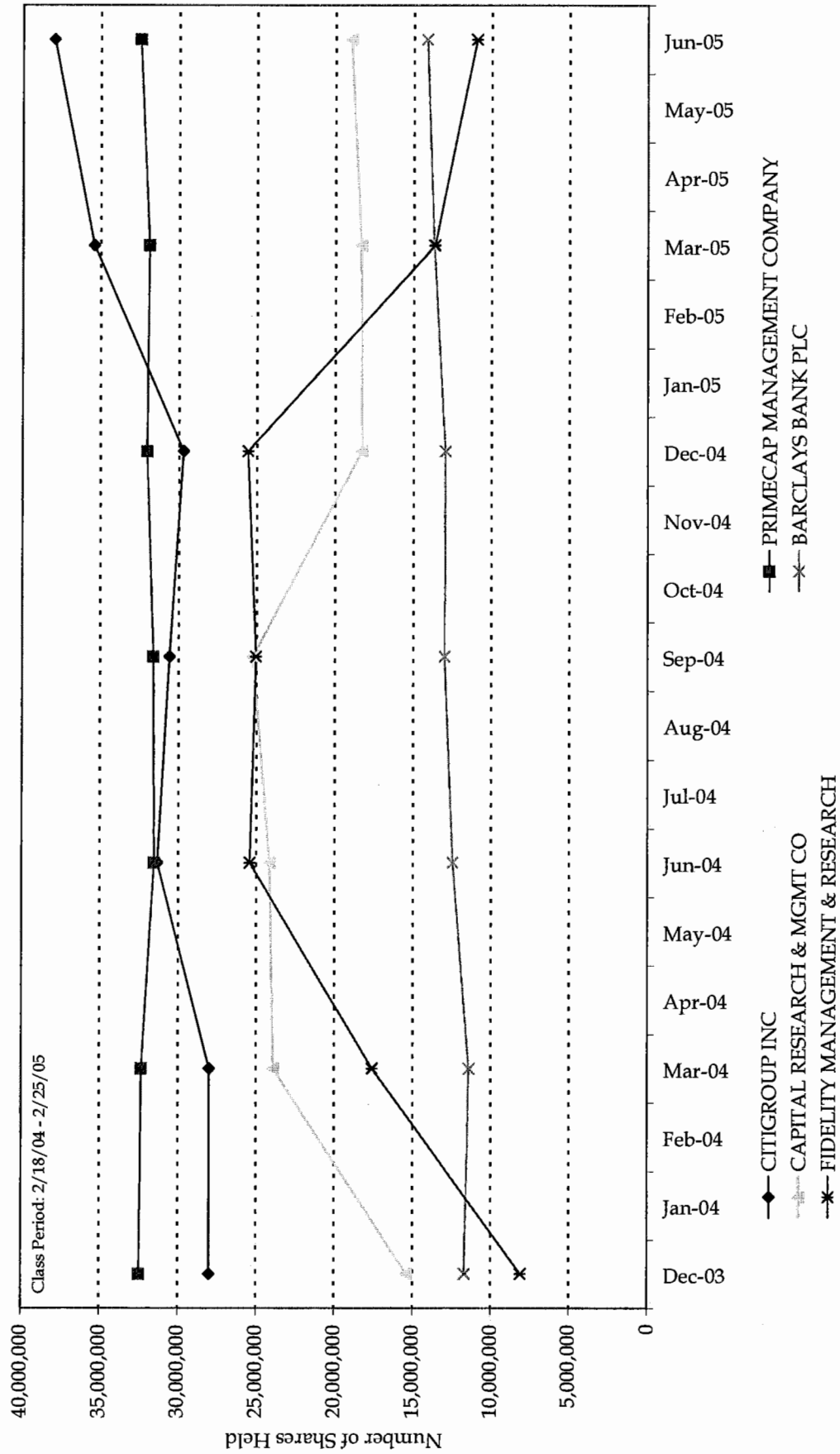
Exhibit 2

History of Biogen Shares Held and Percentage Owned by the Top 25 Institutional Holders* 12/30/03 - 6/30/05



Source: ShareWorld Institutional Investor data for BIIB.

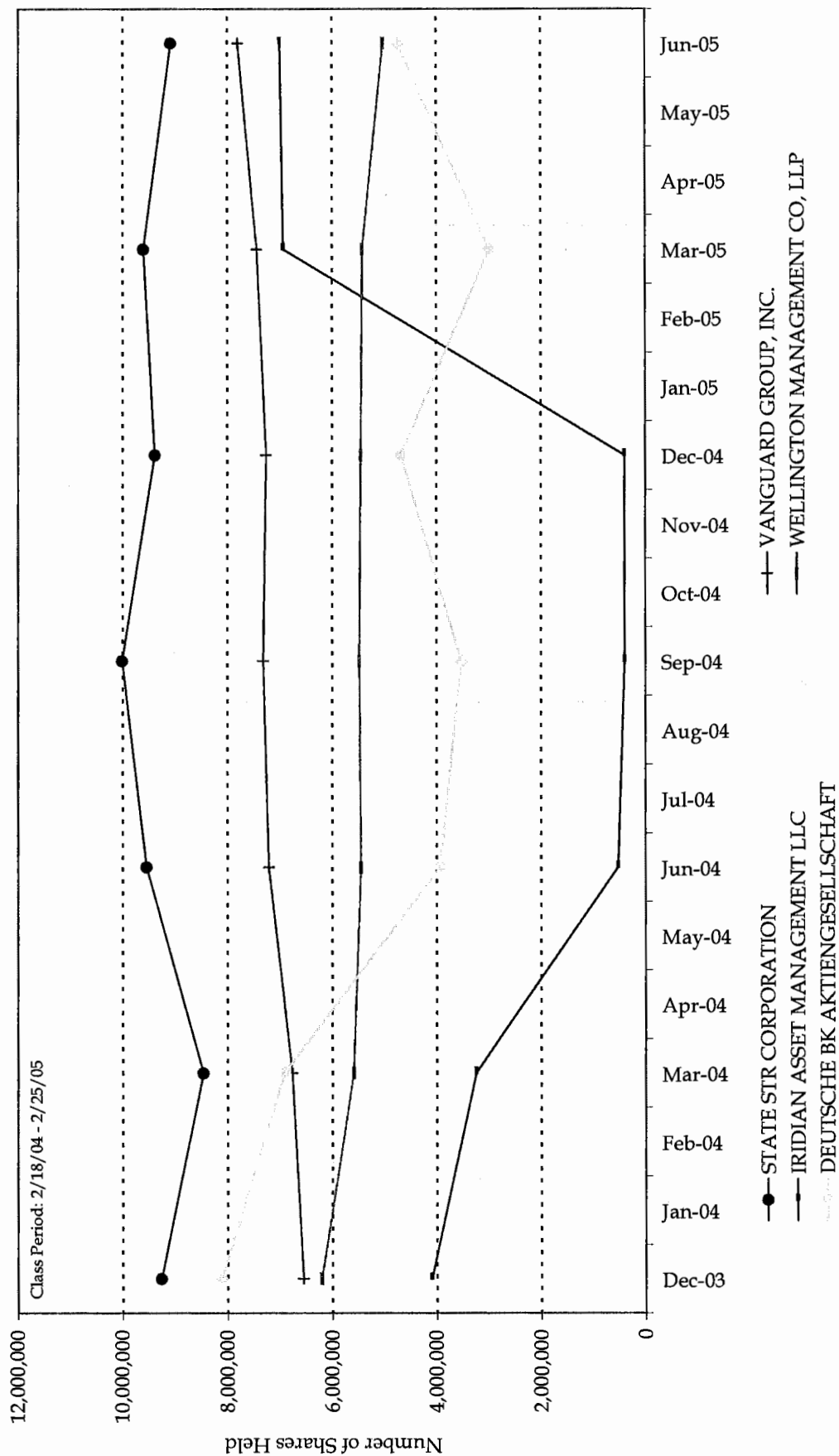
Exhibit 3a

History of Biogen Shares Held by the Top 5 Institutional Holders*
12/30/03 - 6/30/05

*Ranked as of 6/30/05.

Source: ShareWorld Institutional Investor data for BIIB.

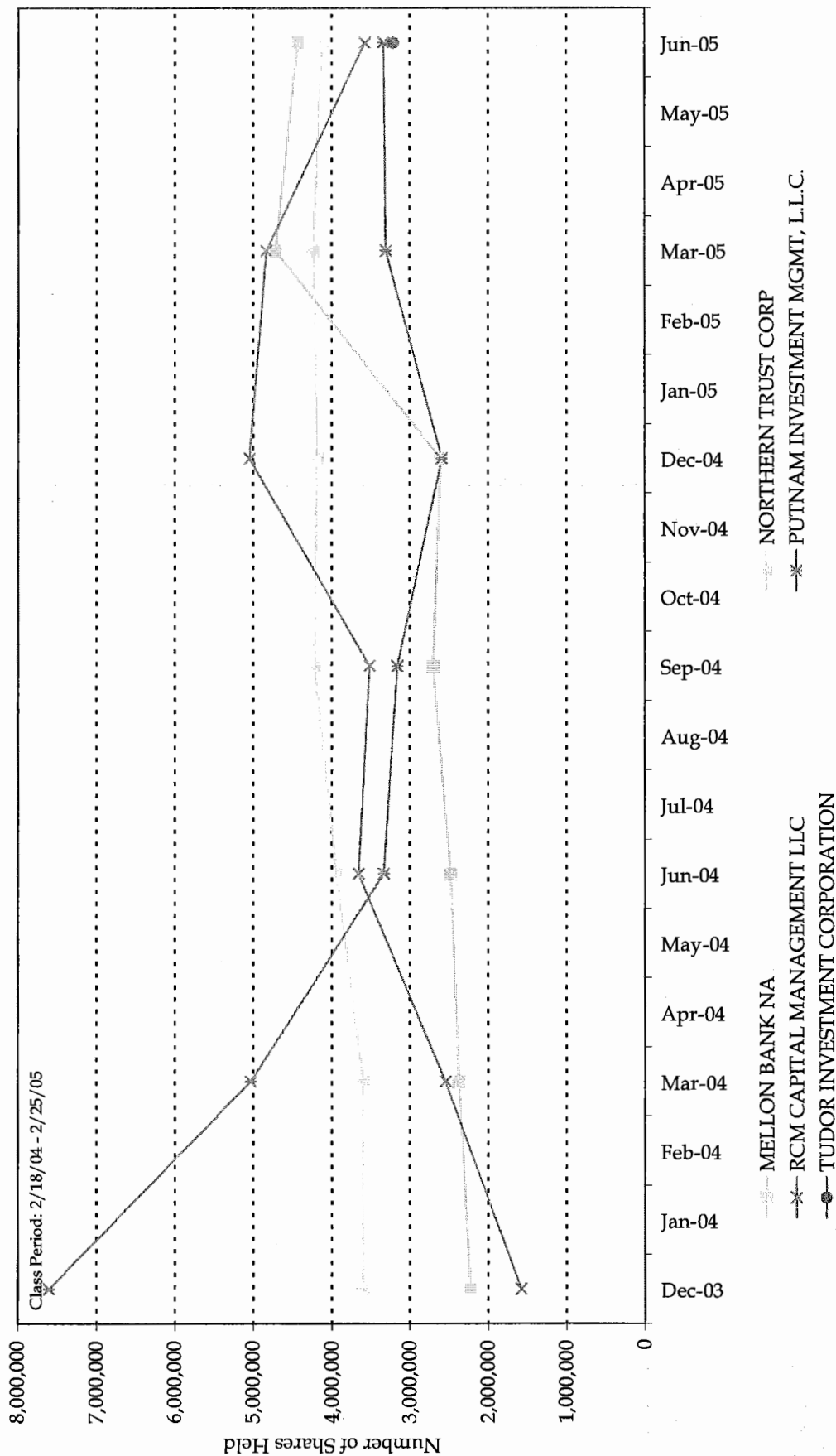
Exhibit 3b History of Biogen Shares Held by the Top 6-10 Institutional Holders* 12/30/03 - 6/30/05



*Ranked as of 6/30/05.

Source: ShareWorld Institutional Investor data for BIIB.

Exhibit 3c History of Biogen Shares Held by the Top 11-15 Institutional Holders* 12/30/03 - 6/30/05



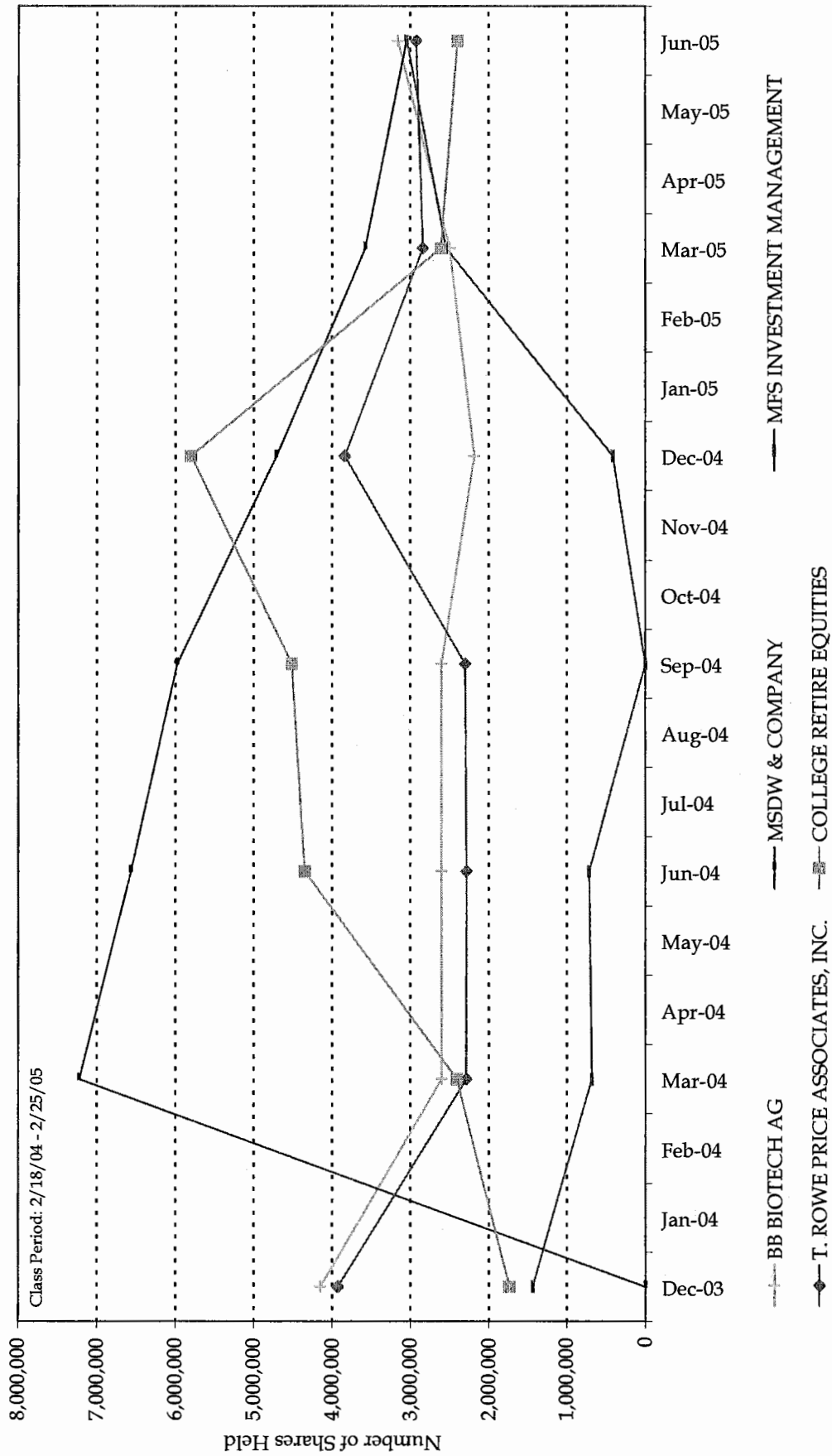
*Ranked as of 6/30/05.

Source: ShareWorld Institutional Investor data for BIIB.

Exhibit 3d

History of Biogen Shares Held by the Top 16-20 Institutional Holders*

12/30/03 - 6/30/05



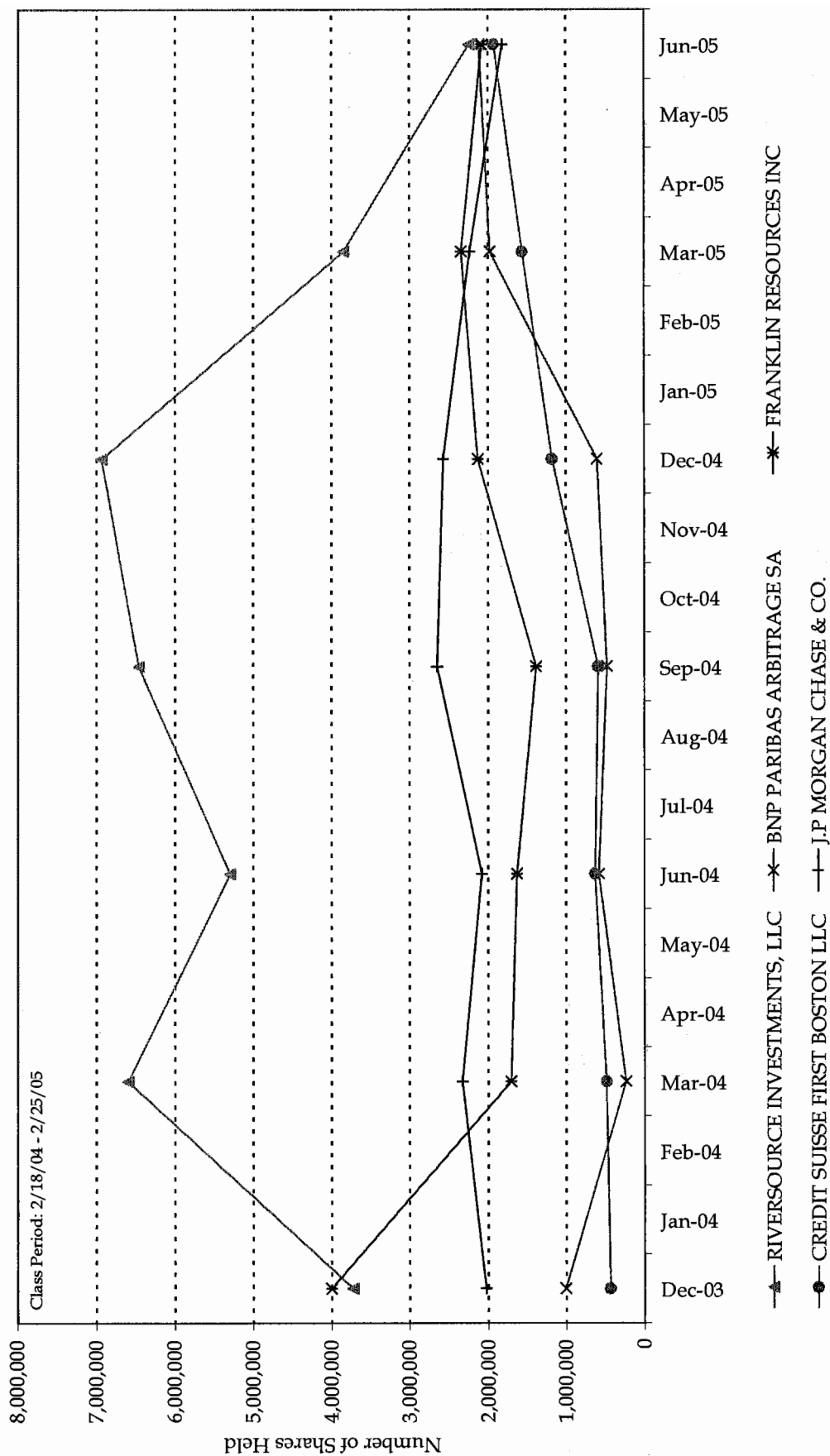
*Ranked as of 6/30/05.

Source: ShareWorld Institutional Investor data for BIIB.

Exhibit 3e

History of Biogen Shares Held by the Top 21-25 Institutional Holders*

12/30/03 - 6/30/05



*Ranked as of 6/30/05.

Source: ShareWorld Institutional Investor data for BIIB.

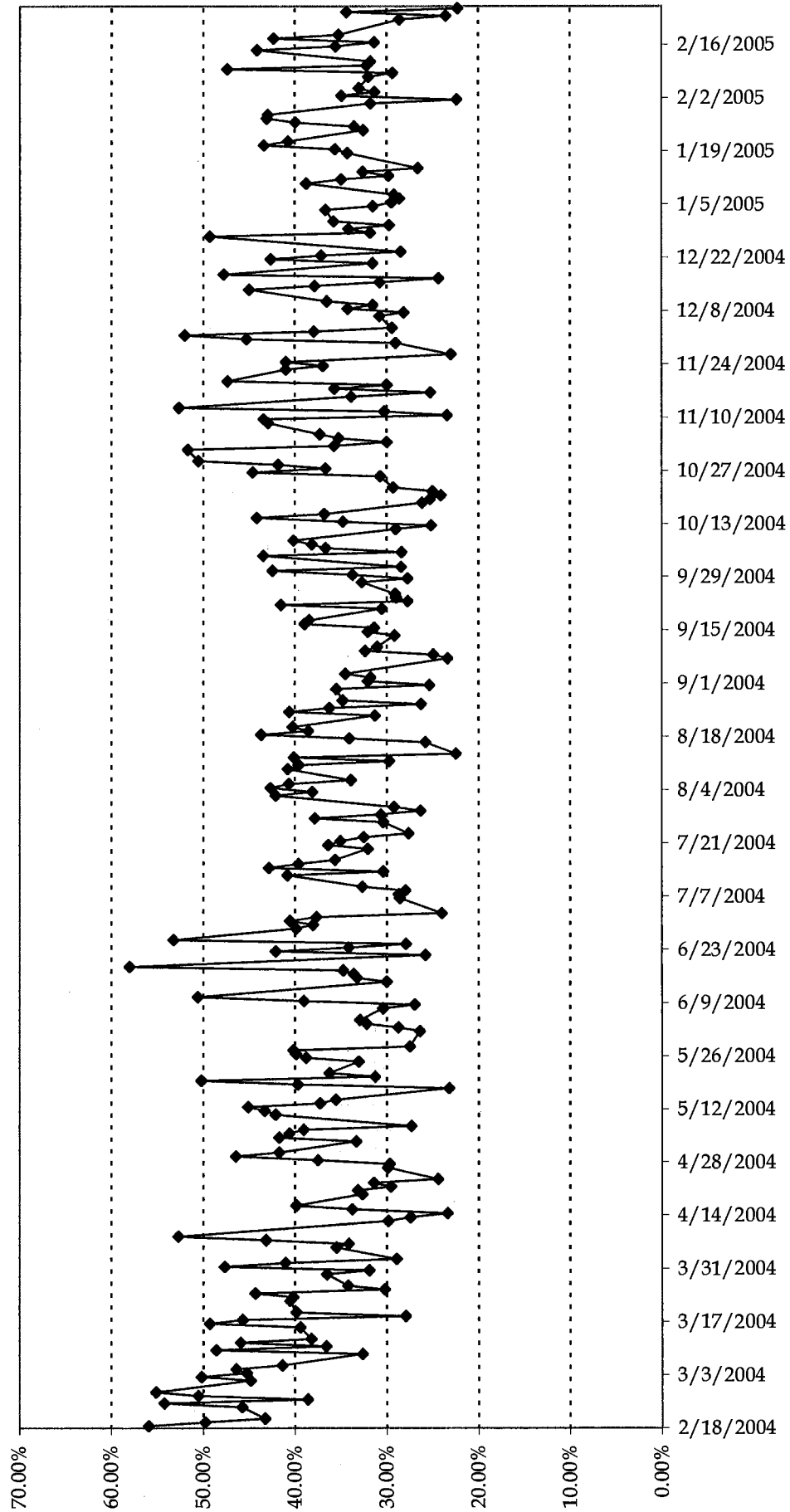
Exhibit 4
Biogen Stock Block Trade Summary
Class Period February 18, 2004 - February 25, 2005

		Biogen Stock Trade Sizes							
		All Sizes	Under 1,000	1,000 and Larger	5,000 and Larger	10,000 and Larger	25,000 and Larger	50,000 and Larger	100,000 and Larger
Trade Volume:	1,009,618,171		622,128,117	387,490,054	210,085,671	158,602,847	95,894,140	56,073,550	27,949,176
Percentage of Trades in Total Volume:	100.0%		61.6%	38.4%	20.8%	15.7%	9.5%	5.6%	2.8%

Source: NYSE Trades & Quotes database (TAQ).

CHICAGO PARTNER, LLC

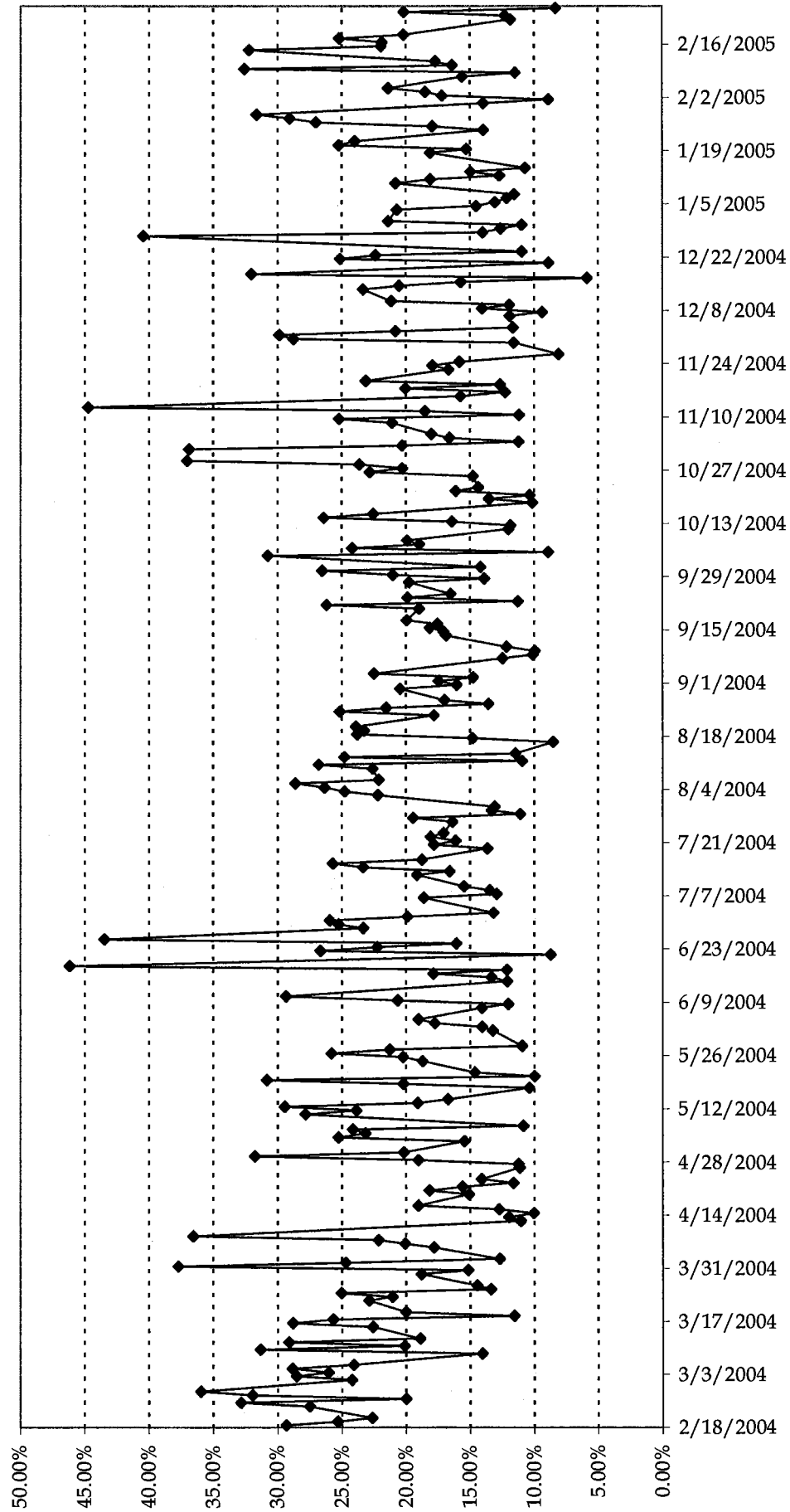
Exhibit 5a
Percentage of Block Trades Over 1,000 Shares Relative to Total Volume
2/18/04 - 2/25/05



CHICAGO PARTNERS, LLC

Source: NYSE Trades Quotes database (TAQ).

Exhibit 5b
Percentage of Block Trades Over 5,000 Shares Relative to Total Volume
2/18/04 - 2/25/05



CHICAGO PARTNERS, LLC

Source: NYSE Trades Quotes database (TAQ).

Exhibit 6a

Class Movants Trade Numbers

Class Period: 2/18/04 - 2/25/05

Movant	Biogen Stock Trading	
	Number of Individual Trades	Number of Block Trades*
	[1]	[2]
Biogen Institutional Investor Group:		
New Jersey Carpenters Pension	18	18
New Jersey Carpenters Annuity	18	18
Folsam Asset Management	76	29
Deerfield Beach Non Uniformed	2	2
Plumbers & Pipefitters Local 520	6	6
Third Millennium Trading LLP	647	150
Horatio Capital	75	26
	842	249
London Group:		
The London Pensions Fund Authority	10	10
National Elevator Industry Pension Fund	10	8
	20	18

Source: Class Movants' certifications.

* Trades on the same date at the same buy/sell price are assumed to constitute a block trade.

CHICAGO PARTNERS, LLC

CHICAGO PARTNERS, LLC

Exhibit 7a

Class Movants Trade Sizes Summary (Shares)

Class Period: 2/18/04 - 2/25/05

Movant	Biogen Stock Trade Size Shares				
	Number of Individual Trades [1]	Under 1,000 [2]	1,000 and Larger [3]	5,000 and Larger [4]	10,000 and Larger [5]
Biogen Institutional Investor Group:					
New Jersey Carpenters Pension	18	50.00%	50.00%	0.00%	0.00%
New Jersey Carpenters Annuity	18	100.00%	0.00%	0.00%	0.00%
Folksam Asset Management	76	52.63%	47.37%	10.53%	5.26%
Deerfield Beach Non Uniformed	2	0.00%	100.00%	0.00%	0.00%
Plumbers & Pipefitters Local 520	6	50.00%	50.00%	16.67%	0.00%
Third Millennium Trading LLP	647	86.40%	13.60%	2.16%	1.85%
Horatio Capital	75	86.67%	13.33%	2.67%	2.67%
	842	82.42%	17.58%	2.97%	2.14%

London Group:

The London Pensions Fund Authority	10	50.00%	50.00%	30.00%	20.00%
National Elevator Industry Pension Fund	10	0.00%	100.00%	100.00%	90.00%
	20	25.00%	75.00%	65.00%	55.00%

Source: Class Movants' certifications.

CHICAGO PARTNERS, LLC

Exhibit 7b

Class Movants Trade Sizes Summary (Dollars)

Class Period: 2/18/04 - 2/25/05

Movant	Biogen Stock Trade Dollar Sizes				
	Number of Individual Trades	Under \$10,000	\$10,000 and Larger	\$50,000 and Larger	\$100,000 and Larger
	[1]	[2]	[3]	[4]	[5]
Biogen Institutional Investor Group:					
New Jersey Carpenters Pension	18	100.00%	100.00%	38.89%	0.00%
New Jersey Carpenters Annuity	18	0.00%	100.00%	5.56%	0.00%
Folksam Asset Management	76	11.84%	88.16%	52.63%	34.21%
Deerfield Beach Non Uniformed	2	0.00%	100.00%	100.00%	100.00%
Plumbers & Pipefitters Local 520	6	16.67%	83.33%	50.00%	33.33%
Third Millennium Trading LLP	647	42.66%	57.34%	14.53%	7.73%
Horatio Capital	75	33.33%	66.67%	17.33%	5.33%
	842	36.94%	63.06%	19.00%	9.98%
London Group:					
The London Pensions Fund Authority	10	20.00%	80.00%	50.00%	50.00%
National Elevator Industry Pension Fund	10	0.00%	100.00%	100.00%	100.00%
	20	5.00%	95.00%	75.00%	75.00%

Source: Class Movants' certifications.

CHICAGO PARTNERS, LLC

Exhibit 8a

Class Movants Trade Sizes Summary (Shares)

Class Period: 2/18/04 - 2/25/05

Movant	Biogen Stock Trade Size Shares				
	Number of Block Trades* [1]	Under 1,000 [2]	1,000 and Larger [3]	5,000 and Larger [4]	10,000 and Larger [5]
Biogen Institutional Investor Group:					
New Jersey Carpenters Pension	18	50.00%	50.00%	0.00%	0.00%
New Jersey Carpenters Annuity	18	100.00%	0.00%	0.00%	0.00%
Folksam Asset Management	29	55.17%	44.83%	27.59%	24.14%
Deerfield Beach Non Uniformed	2	0.00%	100.00%	0.00%	0.00%
Plumbers & Pipefitters Local 520	6	50.00%	50.00%	16.67%	0.00%
Third Millennium Trading LLP	150	38.67%	61.33%	17.33%	6.67%
Horatio Capital	26	46.15%	53.85%	7.69%	7.69%
	249	27.78%	72.22%	61.11%	50.00%

London Group:

The London Pensions Fund Authority	10	50.00%	50.00%	30.00%	20.00%
National Elevator Industry Pension Fund	8	0.00%	100.00%	100.00%	87.50%
	18	42.17%	57.83%	15.65%	7.83%

Source: Class Movants' certifications.

* Trades on the same date at the same buy / sell price are assumed to constitute a block trade.

CHICAGO PARTNERS, LLC

Exhibit 8b

Class Movants Trade Sizes Summary (Dollars)

Class Period: 2/18/04 - 2/25/05

Movant	Biogen Stock Trade Dollar Sizes				
	Number of Block Trades*	Under \$10,000	\$10,000 and Larger	\$50,000 and Larger	\$100,000 and Larger
	[1]	[2]	[3]	[4]	[5]
Biogen Institutional Investor Group:					
New Jersey Carpenters Pension	18	100.00%	100.00%	38.89%	0.00%
New Jersey Carpenters Annuity	18	0.00%	100.00%	5.56%	0.00%
Folksam Asset Management	29	20.69%	79.31%	44.83%	41.14%
Deerfield Beach Non Uniformed	2	0.00%	100.00%	100.00%	100.00%
Plumbers & Pipefitters Local 520	6	16.67%	83.33%	50.00%	33.33%
Third Millennium Trading LLP	150	10.00%	90.00%	62.00%	48.67%
Horatio Capital	26	0.00%	100.00%	57.69%	26.92%
	249	9.13%	90.87%	59.13%	43.48%

London Group:

The London Pensions Fund Authority	10	20.00%	80.00%	50.00%	50.00%
National Elevator Industry Pension Fund	8	0.00%	100.00%	100.00%	100.00%
	18	5.56%	94.44%	72.22%	72.22%

Source: Class Movants' certifications.

* Trades on the same date at the same buy/sell price are assumed to constitute a block trade.

CHICAGO PARTNERS, LLC

Exhibit 9a

Summary of Class Movants Estimated Profit/(Loss)

Class Period: 2/18/04 - 2/25/05

Movant	Shares Purchased	Purchase Amount	Shares Sold	Sales Amount	Shares Held	Estimated Value*	Estimated Losses
Biogen Institutional Investor Group:							
New Jersey Carpenters Pension	10,800	\$646,133	4,700	\$251,169	6,100	\$226,231	(\$168,733)
New Jersey Carpenters Annuity	6,600	\$395,452	2,700	139,830	3,900	\$144,639	(\$110,982)
Folksam Asset Management	88,723	\$5,492,535	48,249	3,133,777	40,474	\$1,501,061	(\$857,698)
Deerfield Beach Non Uniformed	4,800	\$322,465	4,800	191,784	0	\$0	(\$130,681)
Plumbers & Pipefitters Local 520	5,440	\$328,226	5,440	216,758	0	\$0	(\$111,468)
Third Millennium Trading LLP	337,679	\$20,573,840	228,205	13,445,292	109,474	\$4,060,067	(\$3,068,481)
Horatio Capital	71,100	\$4,338,041	48,100	2,968,970	23,000	\$853,002	(\$516,069)
	525,142	\$32,096,692	342,194	\$20,347,581	182,948	\$6,785,001	(\$4,964,111)

London Group:

The London Pensions Fund Authority	84,909	\$5,204,809	0	\$0	84,909 **	\$3,149,024	(\$2,055,785)
National Elevator Industry Pension Fund	134,500	\$7,767,468	134,500	\$6,064,261	0	0	(\$1,703,208)
	219,409	\$12,972,277	134,500	\$6,064,261	84,909	3,149,024	(\$3,758,993)

*Calculated using Shares Held multiplied by Movants' Hold Price of \$37.087

**In Schedule A London shows sales of 241 shares at sales prices greater than \$37.087 that would marginally reduce estimated losses as calculated
Source: Class Movants' certifications.

CHICAGO PARTNERS, LLC

Exhibit 9b

Summary of Class Movants Estimated Profit/(Loss) - Updated for 90-Day Lookback Price
Class Period: 2/18/04 - 2/25/05

Movant	Shares Purchased	Purchase Amount	Shares Sold	Sales Amount**	Shares Held	Estimated Value of Shares Held*	Total Gain (Loss)
Biogen Institutional Investor Group:							
New Jersey Carpenters Pension	10,800	\$646,133	4,700	\$251,169	6,100	\$229,228	(\$165,735)
New Jersey Carpenters Annuity	6,600	\$395,452	2,700	139,830	3,900	\$146,556	(\$109,066)
Folsam Asset Management	88,723	\$5,492,537	48,249	3,133,776	40,474	\$1,520,949	(\$837,812)
Deerfield Beach Non Uniformed	4,800	\$322,465	4,800	\$191,784	0	\$0	(\$130,681)
Plumbers & Pipefitters Local 520	5,440	\$328,226	5,440	\$216,758	0	\$0	(\$111,468)
Third Millennium Trading LLP	337,679	\$20,573,840	228,205	13,445,292	109,474	\$4,113,859	(\$3,014,689)
Horatio Capital	71,100	\$4,338,041	48,100	2,968,970	23,000	\$864,303	(\$504,767)
	525,142	\$32,096,693	342,194	\$20,347,579	182,948	\$6,874,895	(\$4,874,218)

London Group:

The London Pensions Fund Authority	84,909	\$5,204,908	0	\$0	84,909	\$3,190,745	(\$2,014,162)
National Elevator Industry Pension Fund	134,500	\$7,767,618	134,500	\$6,021,920	0	\$0	(\$1,745,698)
	219,409	\$12,972,526	134,500	\$6,021,920	84,909	\$3,190,745	(\$3,759,860)

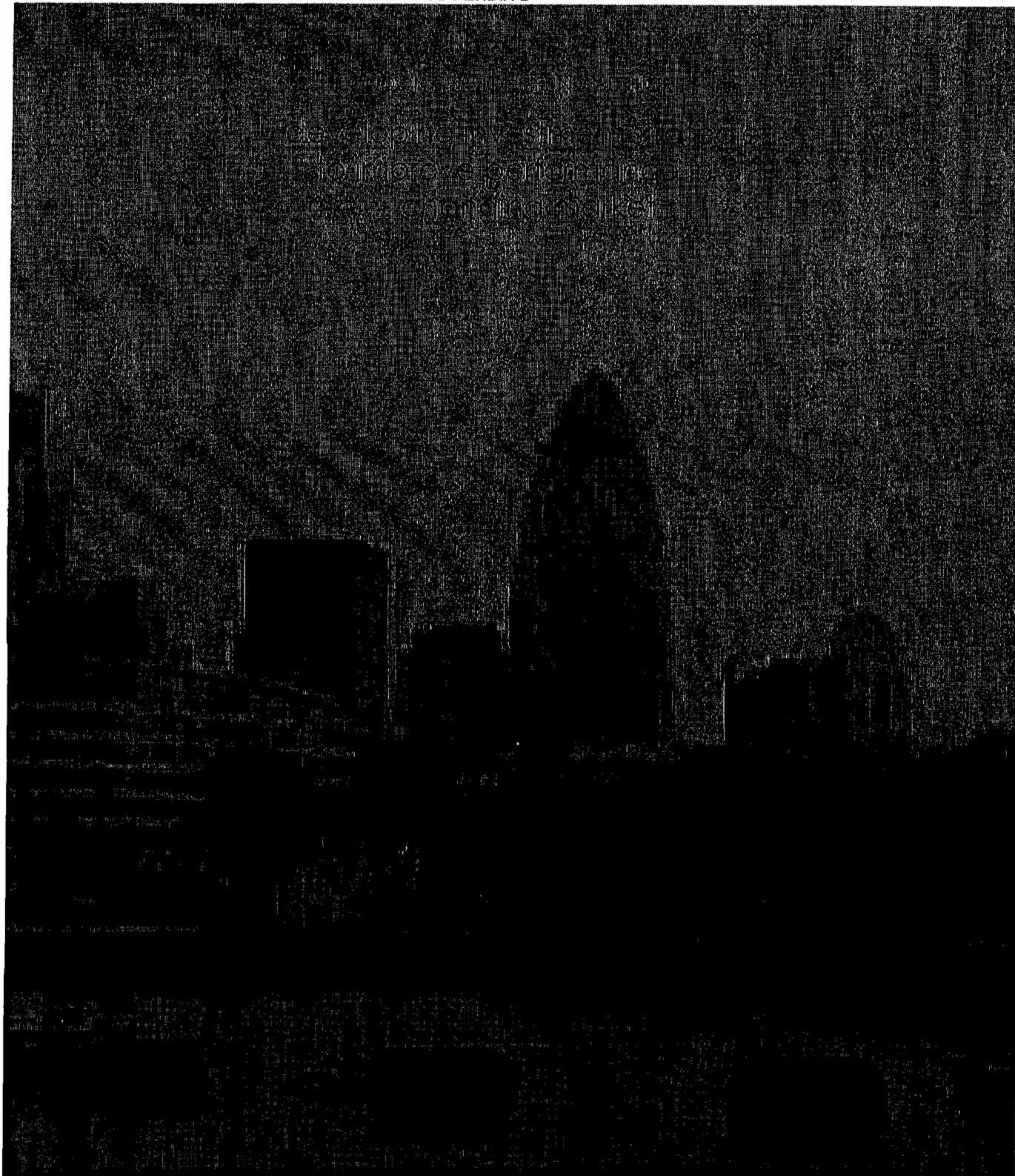
*Calculated using Shares Held/Sold beyond class period multiplied by 90 day lookback price (average price in 90 days following end of class period) of \$37.58 used in place of Movants' Hold Price of \$37.09 (the 60 day lookback price calculated using data available when the certifications were filed)

** Includes sale made by National Elevator of 90,000 shares on February 28, 2005 using the actual sales price of \$38.18 per National Elevator's Certification Statement Schedule A as opposed to \$38.65 used in movant's estimated loss calculation.

Source: Class Movants' certifications.

CHICAGO PARTNERS, LLC

APPENDIX B



Investment Report

2004-05



Market commentary - year to 31st March 2005

Equity markets enjoyed a good year, supported by strong economic growth and, toward the end of the period, merger and acquisition activity. Increases in short-term interest rates in the UK and US, implemented in response to concerns over the emergence of inflationary pressures, appears to have had little impact on investor sentiment.

In the UK, the FTSE All Share Index advanced by 15.6%. The strongest group was mid size companies, +17.1%. Large and small companies performed less well, +15.4% and 12.9% respectively. Value stocks advanced by 18.0% compared with the more modest 12.8% achieved by growth stocks, extending the trend in favour of value to 5 years. In general the corporate sector was strong with the major clearing banks, including HBOS, HSBC, the Royal Bank of Scotland and Barclays, and major oil companies, Shell and BP, announcing significant profit increases during 2004.

In contrast, certain retailers including Marks & Spencer and Boots struggled to maintain market share in a very competitive sector.

Expressed in local currencies, overseas equity markets produced mixed returns. Europe (ex UK) rose by 15.1% and North America by 7.3%. For UK investors, European equity returns were enhanced (to 18.6%) by the appreciation of the Euro against Sterling, but Dollar depreciation reduced returns from North America to 4.8%. Japan advanced by a modest 1.2%, reflecting the uneven pattern of economic growth during the year. Pacific markets (ex Japan) rose by 12.3%.

Despite the rise in short-term interest rates, long dated bond yields, in both the UK and US, declined for much of the period. In a now famous speech made in February 2005, the Chairman of the US Central Bank stated that 'the broadly unanticipated behaviour of world bond markets remains a conundrum'. From that point, yields on long dated bonds in the US and UK increased, as markets started to focus on the implications of increasing inflationary pressures. The reversal of the prolonged decline in long bond yields had a modestly beneficial impact on pension scheme funding levels.

In the March Budget, the Chancellor announced the creation of a fifty year, fixed interest gilt. The first issue will be in late May; an Index-Linked issue of similar maturity may follow in October. These bond issues will appeal, amongst others, to insurance companies and pension funds seeking to match long term liabilities with more appropriate assets, in addition to enabling the Government to lock into historically low nominal and real interest rates for a long period.

In currency markets, the long slide in the US dollar was arrested during the first quarter of 2005 but the currency still declined by 3.5% on a trade weighted basis between March 2004 and March 2005.

Comments from certain Central Banks on the need to 'diversify' their asset base merely acted to unsettle the Dollar and raised fundamental questions over its future direction. The twin deficits (current account and fiscal) continue to threaten the long term stability of the Dollar.

The price of oil was a major concern to investors as it touched record levels and encouraged forecasts that it might reach \$100 per barrel sometime during 2005. Market participants are not sure about the impact of higher oil prices on activity and inflation; the depressing impact of lower economic activity might compensate for the direct inflationary pressures.



Investment report 2004-05

Introduction

Last year's report focused on the new LGPS regulatory environment and in particular the emphasis on the requirement for consultation on future funding with those who finance pensions via the employer contribution in preparing a Funding Strategy Statement. This year deals more with investment of the fund as an integral element of the funding strategy.

LPFA's response to the Myners Investment principles has developed over the year and the first part of this report addresses performance of the Authority in the decisions and actions taken, of its advisers, and provides an overview of the reports made by each investment adviser.

Review of performance on decisions and actions

The Investment Strategy Committee met on five occasions and considered 53 reports. They also held a special meeting with the actuary to consider valuation assumptions, a separate training day and an away-day session to review strategy. A review of performance is given against strategic objectives and key tasks.

Meeting standards

The investment objective to maintain the solvency of the fund and to hold contribution rates low and steady was not achieved in the three-year valuation period to 31st March 2004, due primarily to a significant and prolonged downturn in world equity markets.

Investment management arrangements and fee structures were reviewed in January and action deferred to the full review of strategy.

Optimising efficiency and effectiveness

New arrangements for the administration and custody of London County stocks were agreed and implemented through Computershare, the global share registry.

Review of investment strategy

A fundamental review of investment strategy was undertaken at the away-day in March in the light of the valuation outcomes, and significant changes were agreed, together with an implementation plan and risk framework ~ see details on page 11.

A re-assessment of valuation assumptions was agreed with the actuary in the early stages of the valuation process and employers informed. Specific asset class reviews were undertaken on structured solutions, alternative assets, and cash-flow matching of bonds and index linked gilts.

The overall funding strategy was developed in consultation with employers and the Statement published in February in accordance with the regulations.

Options for a long term investment model were considered as part of LPFA's involvement with the Marathon Club in the autumn.

Governance structure

Investment decision processes were reviewed as part of a new governance framework.

A new policy statement on active and responsible investing was agreed, incorporating a series of collaboration and engagement initiatives. The new policy was published in a revised Statement of Investment Principles following consultation.

The Committee maintained a quarterly monitoring process of compliance matters and these are referred to later in this report in more detail.

Familiarity and training

A programme of learning sessions has been conducted throughout the year involving presentations and research on asset classes and investment styles.

As part of the Board appointment process, competency statements have been drawn up for each Member itemising their core skills, experience and training, expressed in hours.

Review of investment advisers

The Committee's two independent investment advisers and the fund actuary attend all meetings of the Committee to provide guidance and advice on a wide variety of investment matters. The advisers also attend monitoring meetings with the external investment managers.

Their input has proved invaluable in a number of areas, in particular the build-up of a portfolio of alternative assets, stock lending, custody, transaction cost monitoring, and the review of investment strategy.

As part of their responsibilities the two investment advisers each provide an annual report on the past year's activities as summarised below.

Investment advisers' overview

Both advisers refer to an improvement in the decision making process due to the greater frequency and timeliness of meetings as recommended last year. The quality of information provided to Members is considered high and they come to meetings well prepared. The quality of debate is thus enhanced and decision making more effective.

The away-day session to review investment strategy was considered both fruitful and extensive. A number of alternative and radical strategies emerged, recognising the asset/liability dynamics and risks involved. The process of implementation will be challenging and time consuming. The new style mandates will need to be understood and the processes evaluated before fully effective monitoring can continue.

Comments were made on the performance of individual managers with the expectation that new investment style mandates will give the potential to enhance returns for both sub-funds.

Both advisers refer to the strength of the in-house team in the amount of work undertaken and quality of output, and thank them for their support in delivering the advisory role.

Investment report 2004-05

Funding and investment strategies

With the certain prospect of under-funding emerging from the valuation at 31st March 2004, considerable time was devoted in the year to ensuring accurate data, reviewing financial and demographic assumptions, developing a long term and viable funding strategy with the actuary, and consulting employers on the impacts and options.

It was a long process partly because of the need for consultation, but mainly because investment returns, in common with all pension funds, were poor over the actuarial period. This has required some delicate decisions, balancing the spreading of deficits over a period of time, together with phasing in higher contribution rates on a basis which was both reasonable and open to public scrutiny. Valuations for individual employers were completed by the statutory deadline of 31st March 2005.

The principal reasons for the downturn in funding levels include:

- ~ Under-performance of global capital markets leading to returns in the valuation period falling some 30% below the actuarial assumptions.
- ~ High gilt yields in a low inflation environment.
- ~ Longevity and changing demographics as they impact on liabilities, including rising salary levels and early retirements.
- ~ The slow recovery of employer contribution rate levels from periods of pension fund surpluses.

Future strategy will be linked closely to the liability profiles that have emerged from the valuation process and by the solvency position of individual employers. This will inevitably lead to a longer term view of investment to generate returns related to liabilities and funding, rather than in relation to other funds or market indices. Investment returns need to be increased whilst not further increasing risk unduly.

The Board has recently reviewed its investment strategy and has initiated an open tender process for new style portfolios and managers. The main proposed changes are detailed on page 11.

Financial assumptions

	Mar 2004 % p.a.	Real % p.a.
Investment Return /Discount Rate		
Active Sub-Fund	6.30%	3.40%
Pensioner Sub-Fund	6.20%	3.30%
Pay Increases	4.40%	1.50%
Price Inflation /Pension Increases	2.90%	-

Fund valuation as at 31st March 2005

31.3.2004 £'000s		31.03.2005 £'000s
368,198	Fixed Interest Securities	353,509
964,483	Equities	995,288
907,153	Index-Linked Securities	862,332
361,592	Managed & Unitised Funds	436,754
80,486	Property Unit Trusts	111,328
4,524	Private Equity	43,449
78,281	Cash and other	186,860
2,794,717	Total Net Assets	2,989,520

Strategic asset allocation

The table below shows the current asset allocations against the long term targets set in 2002. Apart from the diverging impact of changes in market values and a redemption of an Index-linked gilt, the main change is the build-up of alternative assets, as explained below.

Alternative assets

The strategic policy aimed at diversifying some 15% (or currently £240m) of the asset base of the active sub-fund away from equities and into alternative assets continued during the year. Whilst some other asset classes, such as commodities, are currently under review, the current main asset classes are as follows:

~ Property Unit Trusts (PUT's)

A £100m investment, representing some 7% of the fund, was made in five major PUT's between September 2003 and effectively June 2004. These trusts provide exposure to actively managed and broadly diversified portfolios of commercial, office and industrial property in the UK. Coupled with an attractive yield, they are also, as trusts, a far more cost effective and marketable means of holding property than could be achieved by physical direct property investment.

The net asset value performance of this portfolio has been very good (+12.95%) since inception. Additionally, it enjoys a current yield of 4% p.a. There are no current plans to increase exposure to this asset class.

~ Private Equity Funds

Following a detailed and comprehensive selection process, three private equity fund of funds managers were chosen in October 2003 to create and manage portfolios within an agreed sector and geographical

strategy. The overall commitment to the first programme with this asset class was set at some £125m. It is envisaged that every 3 years an extension programme will be instituted, in order to maintain the exposure to the asset class.

The higher returns which historically have been achieved from this asset class must be measured against the extended length of time it takes to fully realise the investments. The average life of the funds is between 12 to 15 years and it will probably take up to 5 years to commit the money. The process is further complicated by distributions from realisations, sometimes as early as 2 years after commencement. The probability is that only about 50% to 75% of the commitment will actually be invested.

Over the year, and to bridge the gap caused by the timing of drawdowns and the need to maintain the exposure to the sector, two tranches of investment, mainly in publicly quoted Private Equity Investment Trusts, and totalling some £60m were completed. The plan is that these will be reduced over time as calls increase. They effectively enable control of the exposure to the sector.

The sector strategy of the first programme is broadly as follows: 25% in venture capital / 50% in medium and small buyouts / 25% in secondaries and/or mezzanine financing. The broad geographic split is 60% North America / 40% Europe.

~ Private Finance Initiative (PFI)

The LPFA's exposure to this sector has been increased over the year in terms of commitment if not materially in actual investment, with an investment in the Henderson PFI Secondary Fund.

Asset allocations		Active		Pensioner		Total	Total
	sub-fund	Target		sub-fund	Target	Fund	Fund
	%	%		%	%	2005	2004
Fixed Interest	11	15		20	20	15	18.5
Index-Linked	0	0		58	67	27	33.9
UK Equities	35	35		9	6.5	23	22.5
Overseas Equities	40	35		7	6.5	25	22.5
Alternative Assets	10	15		0	0	5	2.9
Cash	4	0		6	0	5	2.2
	100.0	100.0		100.0	100.0	100.0	100.0

Investment report 2004-05

Investment performance

The WM Company measures the investment performance of the sub-funds based on reconciled transactions data supplied by the custodian.

The asset allocation encapsulated in the benchmarks is designed to spread the risk and minimise the impact of poor performance in a particular asset class. It seeks to achieve a spread of investments across the main asset classes (e.g. quoted equities, fixed interest, private equity and property) and geographic regions within each class, as appropriate to the type of fund. The pensioner sub-fund is mature with an emphasis on income (mainly bonds), while the active sub-fund is relatively young and has an emphasis on growth (equities).

For the financial year (1 year)

- ~ The Pensioner sub-fund produced a return of +6.1% against a benchmark performance of +6.3%. This 0.2% relative under-performance was attributed to asset allocation -0.1% and stock selection -0.1%.
- ~ The Active sub-fund produced a return of +10.7% against a benchmark return of +11.9%. This 1.2% relative under-performance was attributed to asset allocation -0.6% and stock selection -0.6%.

For the medium term (3 years)

- ~ The Pensioner sub-fund produced a return of +6.6% against a benchmark return of +6.3%. This relative 0.3% out-performance was attributed to asset allocation +1.1% and -0.8 to stock selection.
- ~ The Active sub-fund produced a return of +0.6% against a benchmark return of +2.3%. This relative 1.7% under-performance was attributed to asset allocation -0.8% and stock selection -0.9%.

For the longer term (10 years)

- ~ The Pensioner sub-fund produced a return of +8.0% against a benchmark return of +7.9%.
- ~ The Active sub-fund on the other hand, produced a return of +5.5% against a benchmark return of +7.0%. It should be noted that the portfolio structures and benchmarks have changed significantly over the 10 years.

Performance summary as at 31 March 2005

	1 Year	3 Years	10 Years
Active sub-fund	10.7	0.6	5.5
Benchmark	11.9	2.3	7.0
Pensioner sub-fund	6.1	6.6	8.0
Benchmark	6.3	6.3	7.9
Total Fund	8.5	3.6	6.7
WM All Funds (average return)	11.6	3.7	8.0
RPI (broadest measure)	3.2	3.0	2.6

Compliance reporting

Manager accountability meetings

Since September 2003, mid-quarter meetings have been held with the active investment managers, Hendersons and Goldman Sachs. These meetings are conducted by the LPFA Investment team and are intended to analyse and review the progress and, more importantly, the process by which the funds under management are managed. Topics covered include such items as the make-up of the portfolio (by geography and sector), the level of turnover, the costs of settlement, changes in the management team, attribution analysis, relevant economic and political developments, trading and performance. These meetings are held at the managers' offices and are attended by the respective actual managers of the funds.

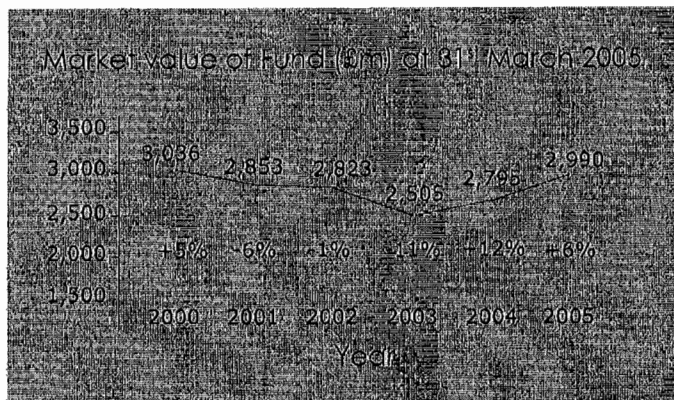
It also provides a useful opportunity to directly convey any concerns that the LPFA Board / ISC might have, as well as learning of new developments or changes at both these managers. A full report together with statistics is presented to the next ISC following the visit.

The system has worked well, but changes will be required next year to cater for the increase in the number of managers following the award of the new mandates.

Treasury management

This relates to the overall management of all the LPFA's cash investments – money market funds and other externally managed cash funds. Essentially, there are currently three elements.

- ~ Sector Treasury Services' appointment as adviser on the placement of monies co-incided with the redemption of a large index-linked holding in October 2004. Their primary advice was to place £60m with Royal London Asset Management (one year mandate), £40m with Bank of Scotland and £20m with Abbey. The last two although instant access accounts both pay higher than average interest rates.
- ~ The previous policy of treating all 3 money market funds on a broadly equal basis, was altered by Sector to reflect concentration on the highest one year simple yields. In reality, and within operational constraints, this has resulted in the funds of Fidelity and Barclays transacting broadly similar cash balances whilst that of JP Morgan Chase has been minimized.
- ~ LCC Loan Stock monies. The repurchase by means of a public tender of the two loan stocks originally issued by the London County Council was planned and initiated in the year, and eventually completed in June 2005.



Investment report 2004-05

Corporate governance

During the year under review, the LPFA voted in favour of 633 resolutions and against 346 resolutions in UK companies. Letters are now sent to all companies where resolutions are opposed with an explanation of the reasons, consistent with in-house policy described in a Code of Practice on the exercise of voting rights. This conforms with the NAPF 2004 corporate governance template.

The Board appointed Manifest for an initial 12 month term to June 2005 to provide a UK Research and Voting Service. This primarily consists of the provision of voting Intentions, and supporting business meeting reports, for all UK constituent holdings, vote lodgement and voting reports.

Research is currently being undertaken to determine the prospects and costs of voting overseas and establishing proposals for practical voting policies in these markets.

LPFA, as a member of the Local Authority Pensions Fund Forum (LAPFF), receives research and advice in relation to voting issues and company good practice. Through LAPFF, and through membership of NAPF and IIGCC, LPFA is able to engage actively with companies to enhance the process already operated by its external managers.

Voting action is an integral part of being an active and responsible investor. LPFA's policy in this respect were reviewed, revised and published in an amended Statement of Investment Principles. One particular aspect of this new policy defines the responsibilities of the investment managers, and they were consulted on the changes which reflect the guidance issued by the Institutional Shareholders Committee.

A US legal firm, Lerach Coughlin Stoia and Robbins LLP, has been retained for the provision of portfolio monitoring of the Fund's US holdings to identify, and potentially thereafter seek to recover, losses due to breaches of US securities laws ("Class Actions").

Securities lending

UK Gilts, International Equities and, since last year, UK equities are lent through an indemnified programme managed by JP Morgan. The proportion of current value of loans to available portfolio value is about 10% or approx. £200m, and well within the requirements of the LGPS 1998 regulations which have a 25% upper limit. The improving income stream from UK equities should offset at least some 70% of custodial fees on a regular quarterly basis. The efficiency of the programme was reviewed independently during the year by Data Explorers, and some changes in policy and practice introduced as a result.

Custody and banking

As reported last year, the existing global custodian J P Morgan Chase, were re-appointed (1st April 2004) following a comprehensive tender process and market review on considerably improved service terms to the LPFA. Thomas Murray, the specialist custody firm who had assisted in the tender process were appointed to monitor and report on JP Morgan Chase's performance for one year as part of their "PROBE" service.

Geographical analysis of equity holdings
As of 31 March 2005

Region	£m	%
Overseas		
North America	301.1	30.25%
Europe	166.6	16.74%
Far East	66.9	6.72%
Japan	72.0	7.25%
UK	388.6	39.04%
Total Equity Holdings	995.2	100%

Transaction costs

All external managers comply with the IMA transaction cost disclosure code and report quarterly. Their reports are analysed by Inalytics and considered by the Committee.

The LPFA's relationship with Inalytics, to report on the total transaction costs incurred by the Investment managers, was formalised with an initial one year contract in September 2004. They report both explicit (brokerage /commission and stamp duty) and implicit (Impact/timing) transaction costs which are measured against Industry benchmarks, and analysed against asset class, fund manager and broker.

The data provided by Inalytics has improved transparency with identifiable and measurable transaction costs incurred by Investment managers on LPFA's account.

This, in turn, has led to enhancements in the overall monitoring process with;

- ~ a greater understanding by the LPFA of the trading process implemented by the investment managers, and
- ~ an awareness by the investment managers that their trading strategy is being actively monitored on a quarterly basis by the LPFA through the Inalytics analysis.

Trustee training

LPFA supports the practice of regular training to ensure trustees are sufficiently familiar with the issues on which they are required to make decisions. This is achieved by trustees attending training seminars, workshops and conferences provided by external providers, including the National Association of Pension Funds. Internally Members have presentations from the Fund's investment managers, separate training sessions on specialist issues, and receive reports submitted by officers.

Myners compliance and SIP

The central proposal to emerge from the Myner's Review of Institutional Investment published in 2001 was the establishment of a set of non-mandatory (but accountable) principles to improve practice and process in institutional investment management. These principles have been reviewed and revised recently by HM Treasury.

Under the Local Government Pension Scheme (Management and Investment of Funds) Regulations 1999, as amended in 2002, the Authority is required to report its compliance with Myners principles in the Statement of Investment Principles (SIP), and complies fully.

Largest equity holdings

As at 31 March 2005

Shares in issue	Market value (£m)
BP	£34.3
Vodafone	£25.5
GlaxoSmithKline	£17.5
Barclays	£17.2
HSBC	£16.7
Lloyds TSB	£15.1
BHP Billiton	£14.5
Shell Transport & TRD	£13.2
Astrazeneca	£12.8
HEOS	£12.0

Compliance with Myners principles

1. Effective decision making	Full
2. Clear objectives	Full
3. Focus on asset allocation	Full
4. Expert advice	Full
5. Explicit mandates	Full
6. Activism	Full
7. Appropriate benchmarks	Full
8. Performance measurement	Full
9. Transparency	Full
10. Regular reporting	Full

Investment Report 2004-05

Review of long-term investment strategy

On the basis of the valuation results and funding strategies agreed with employers, the Board has reviewed the investment strategies, portfolio structures, benchmarks, risks and management arrangements for each of the Sub-funds.

In overall terms, the strategy needs to deliver higher investment returns which can be sustained over the longer term to recover under-funding and stabilise employer contribution rates.

Active sub-Fund

The tables below show the broad changes in asset allocation agreed and which are currently subject to an open public tender process.

The changes re-enforce the belief that equity returns will add value over time ~ the valuation assumption is an equity risk premium of 2%, i.e. the amount by which equities will outperform bonds.

A more defensive allocation to bonds at a time of underfunding would lock in deficits and reduce the scope to recover full funding.

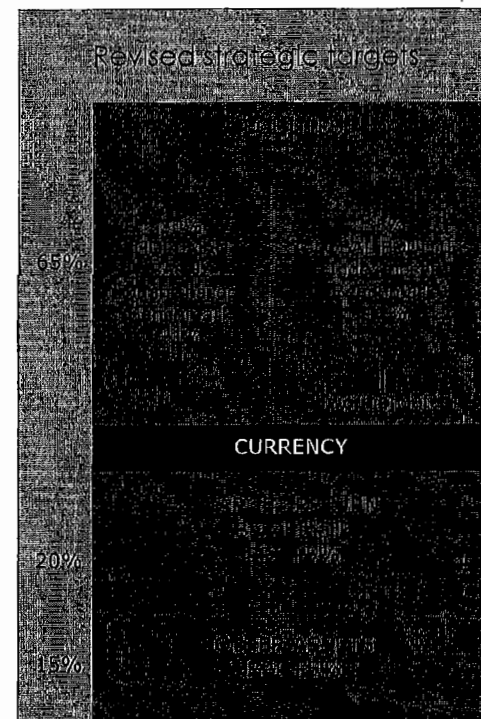
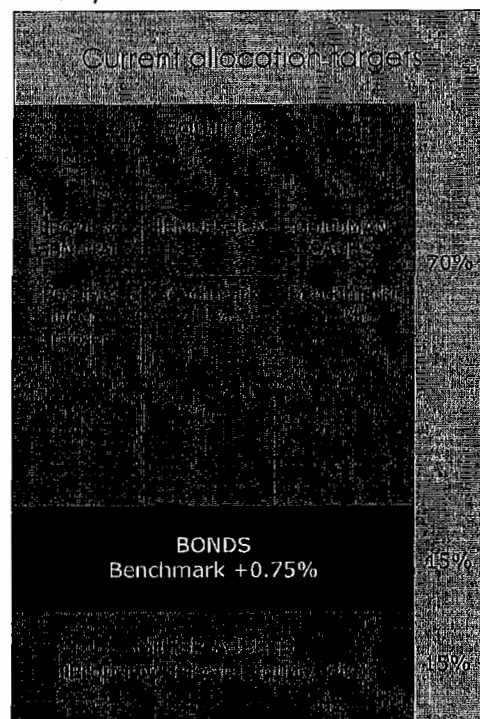
The changes, therefore, show a minor reduction in the equity target from 70% to 65%, comprised of a higher weighting in the GSAM quant mandate (20% to 30%), a more aggressive global equity mandate(s) with an out-performance target of +2%, and a currency overlay mandate to reduce risk to currency movements.

The allocation to bonds (15%) is replaced by a new mandate (20%) with a target return of inflation (RPI) +5%. This portfolio will contain a mixture of assets (including bonds), managed to deliver positive returns in excess of the liabilities.

The allocation to other assets of 15% is unchanged but the components, principally property unit trusts and private equity will be reviewed to ensure cash is invested on a timely basis and for added returns.

Pensioner sub-Fund

The overall asset allocation within this sub-fund is still under review as liabilities and contribution income streams are finalised. However, the expectation is that revised management arrangements will be introduced to secure overall returns of index linked gilts +1.5%, while continuing to match cash flows in the medium term. Potential managers will be drawn from the current tender process.



London Pensions Fund Authority
Dexter House
2 Royal Mint Court
London EC3N 4LP

www.lpfa.org.uk

PUBLIC	
INVESTMENT STRATEGY COMMITTEE:	30.03.2005
REF:	ISC 420

INVESTMENT STATISTICS - 31st DECEMBER 2004

PURPOSE AND SUMMARY

- To set out the latest reported details of the Fund's quarterly valuation and performance by way of background information as at 31st December 2004

GOVERNANCE

- To comply with the Freedom of Information Act (FOI) this report for the quarter ended 31st December 2004 is on the corporate FOI website.

DECISIONS

Members are asked to note:

- (1) the quarterly investment statistics at ANNEX 1.
- (2) the recent valuation 28.02.05 at ANNEX 2.

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NOTE

All performance and valuation data is as at 31st December 2004 It is provided by the WM Company, the LPFA performance measurement provider.

INVESTMENT STATISTICS - 31 DECEMBER 2004

LPFA INVESTMENT STRATEGY**(a) Investment Objective**

To follow an investment strategy which will maintain the solvency of the Fund, while delivering low and stable contribution rates, and which ensures all statutory payments are made accurately and on time.

(b) Investment Strategy Overview

The Fund's assets are divided into two Sub-Funds to match the specific nature of the contributing employer organisations:

Pensioner Sub-Fund comprises pensioners and deferred beneficiaries of employers' no longer in existence and contributors from employers that no longer give access to membership of the LPFA Fund.

Active Sub-Fund comprises all scheduled and admitted bodies that remain open to membership of the LPFA Fund for their employees.

(c) Strategic Benchmark

The total Fund has no specific strategic benchmark. Its performance is the sum of the weighted performance of the Active and Pensioner Sub-Funds. The investment strategy for each Sub-Fund has been developed to match the liability profile of the respective memberships. The strategic benchmark allocation is:

Asset Class	Active	Pensioner	Manager
Total Equities	70%	13%	
UK Equities	35%	6.5%	HGI/ GSAM/ LGIM
Overseas Equities ^{1,2}	35%	6.5%	HGI/ GSAM/ LGIM
Total Bonds	15%	20%	
UK Bonds	7.1%	9.5%	HGI
Index Linked Bonds	3.0%	4.0%	HGI
Overseas Bonds	4.5%	6.0%	HGI
Cash	0.4%	0.5%	HGI
Core Index Linked Bonds	15%	67%	LPFA
Other Investments	15%	0%	
Property ³	7.5%		Various Managers
Private Equity ⁴	7.5%		Various Managers
	100%	100%	

1. The LGIM Global Equities Portfolio and Core Index Linked Bonds Portfolio are passively managed

2. The HGI and GSAM Global Equities Portfolios have a mandate for the Active sub-fund only

3. Deutsche, Hermes, Merrill Lynch, Threadneedle and UBS

4. Harbourvest, Pantheon, LGT, IIC Partnership and The Capital Fund

(d) Types of Investments

The powers and duties of the Board to invest Fund assets are set out in the Local Government Pension Scheme (Management and Investment of Funds) Regulations 1998 as amended. In broad terms, assets may be invested, in accordance with the regulations, in equities, fixed interest and other bonds and property in the UK and overseas. The Regulations specify other investment instruments that may be used, e.g. financial futures, traded options, insurance contracts, stock lending, sub-underwriting contracts.

INVESTMENT STATISTICS - 31 DECEMBER 2004

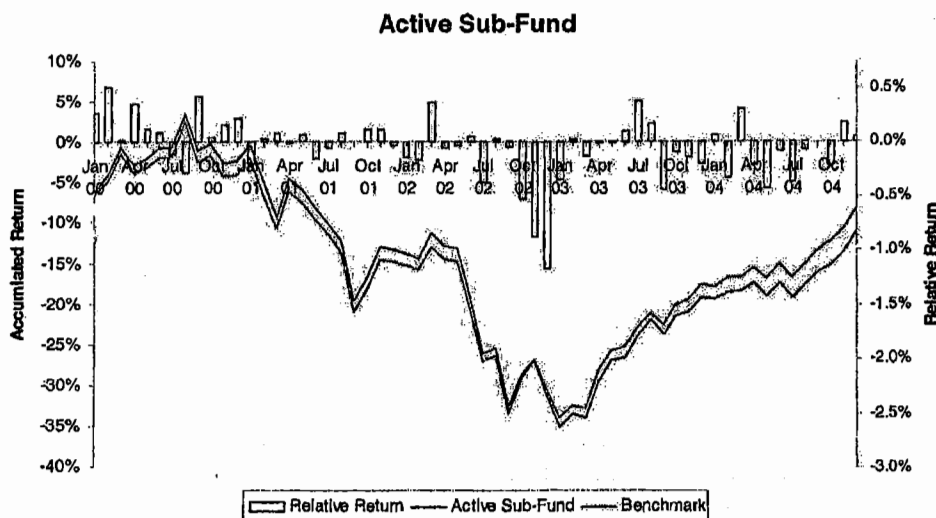
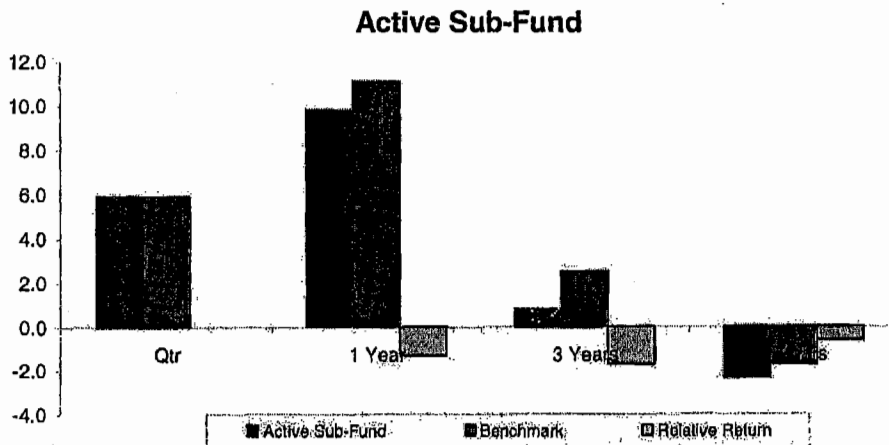
2. SUB-FUND SUMMARY

2.1 PERFORMANCE

	Market Value (£m)	Performance (%)			
		Quarter	1 Year	3 Years (pa)	5 Years (pa)
Active Sub-Fund	1,562.8	5.9	9.8	0.8	-2.3
Benchmark *		5.9	11.1	2.5	-1.7
Relative Return		0.0	-1.3	-1.7	-0.6
Pensioner Sub-Fund	1,390.6	3.4	7.8	6.9	4.6
Benchmark *		3.8	8.7	6.7	4.1
Relative Return		-0.4	-0.9	0.2	0.5

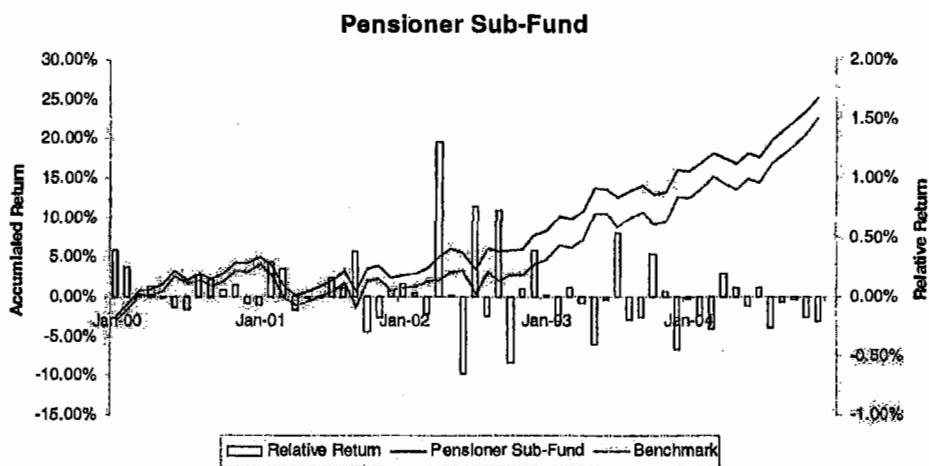
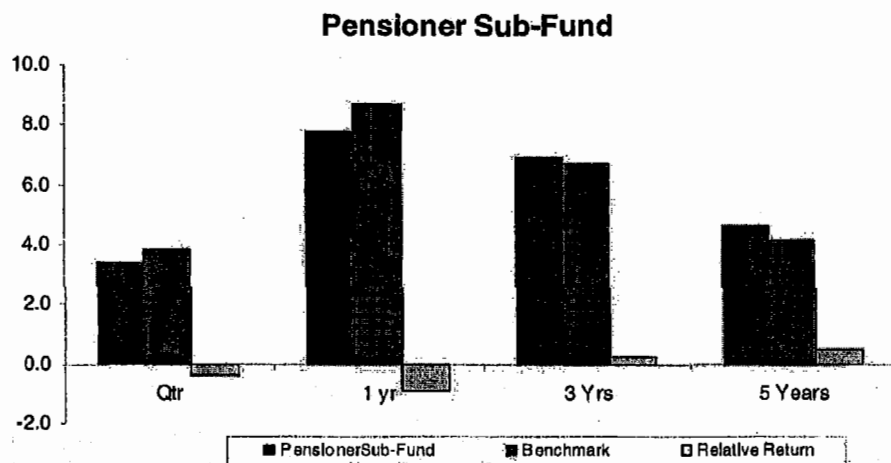
* Refer to section 6.1 for details of Sub-Fund benchmarks.

(a) Active Sub-Fund



INVESTMENT STATISTICS - 31 DECEMBER 2004

(b) Pensioner Sub-Fund

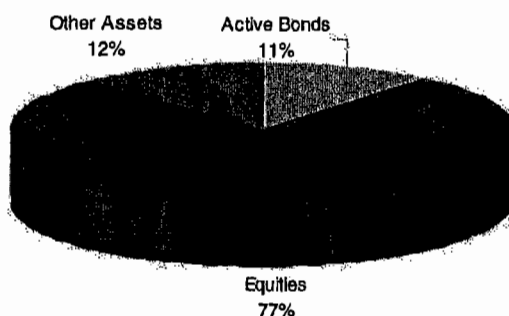


INVESTMENT STATISTICS - 31 DECEMBER 2004

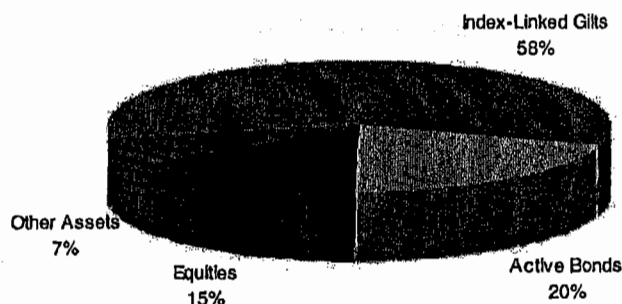
2.2 ASSET ALLOCATION

Asset Class	Active Sub-Fund			Pensioner Sub-Fund		
	Portfolio (%)	Target (%)	Relative (%)	Portfolio (%)	Target (%)	Relative (%)
Index-Linked Gilts	0%	0%	0%	58%	67%	-9%
Active Bonds	11%	15%	-4%	20%	20%	0%
Equities	77%	70%	7%	15%	13%	2%
Other Assets/Cash	12%	15%	-3%	7%	0%	7%
TOTAL	100%	100%		100%	100%	

Active Sub-Fund



Pensioner Sub-Fund



2.3 RETURN ATTRIBUTION

	Attribution (%)			
	Quarter	1 Year	3 Years (pa)	5 Years (pa)
Active Sub-Fund				
Asset Allocation	0.0	-0.5	-0.7	-0.4
Stock Selection	0.0	-0.8	*1.0	-0.2
<i>Relative Return</i>	<i>0.0</i>	<i>-1.3</i>	<i>-1.7</i>	<i>-0.6</i>
Pensioner Sub-Fund				
Asset Allocation	-0.2	-0.3	1.0	0.8
Stock Selection	-0.2	-0.6	-0.8	-0.3
<i>Relative Return</i>	<i>-0.4</i>	<i>-0.9</i>	<i>0.2</i>	<i>0.5</i>

INVESTMENT STATISTICS - 31 DECEMBER 2004

2.4 VALUATION

	ACTIVE SUB FUND						PENSIONER SUB FUND						TOTAL FUND	
	Bonds			Equities			Bonds			Equities			TOTAL	%
	LPIFA £m	HGI* £m	LGIM* £m	HGI £m	GSAM £m	TOTAL £m	LPIFA £m	HGI* £m	LGIM* £m	TOTAL £m	Actual %	Target %		
Index-Linked Bonds	0.0	0.0	0.0	0.0	0.0	0.0	800.5	0.0	0.0	800.5	58	67	800.5	27
Active Bonds	0.0	173.4	0.0	0.0	0.0	173.4	0.0	282.9	0.0	282.9	20	20	456.4	15
UK Gilts		73.2				73.2		119.5		119.5			192.7	
UK Corporates		1.4				1.4		2.3		2.3			3.7	
UK Index-Linked Gilts		27.7				27.7		45.2		45.2			72.9	
Overseas Bonds		65.6				65.6		107.0		107.0			172.6	
Cash & Equivalents		5.5				5.5		9.0		9.0			14.5	
Equities	0.0	0.0	352.3	516.7	328.9	1,197.9	0.0	0.0	206.9	206.9	15	13	1,404.8	48
UK			176.3	242.4	145.3	564.0			103.5	103.5			667.5	
International			175.8	273.0	182.9	631.7			103.2	103.2			734.9	
Cash & Equivalents			0.3	1.3	0.7	2.3			0.1	0.1			2.4	
Other Assets	191.5	0.0	0.0	0.0	0.0	191.5	100.2	0.0	0.0	100.2	7	0	291.7	10
Private Equity	8.2					8.2				0.0			8.2	
Private Equity Investment Trusts	28.9					28.9				0.0			28.9	
The Capital Fund	0.5					0.5				0.0			0.5	
PUTs	106.6					106.6				0.0			106.6	
PFI	3.1					3.1				0.0			3.1	
Miscellaneous	0.8					0.8				0.0			0.8	
Cash & Equivalents	43.4					43.4	100.2			100.2			143.6	
TOTAL	191.5	173.4	352.3	516.7	328.9	1,562.8	900.7	282.9	206.9	1,390.6	100	100	2,953.4	100

The Pensioner / Active Sub-Fund split is as follows:

	Pensioner	Active
LGIM Equities*	37%	63%
HGI Bonds*	62%	38%

INVESTMENT STATISTICS - 31 DECEMBER 2004

3. MARKET REVIEW AND OUTLOOK

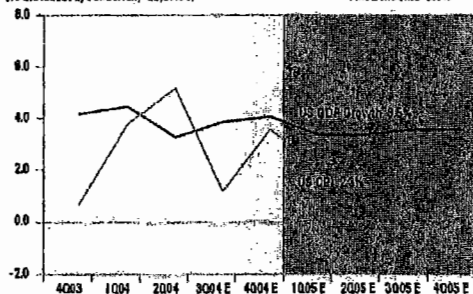
3.1 GSAM REPORT

Economic and Financial Insights

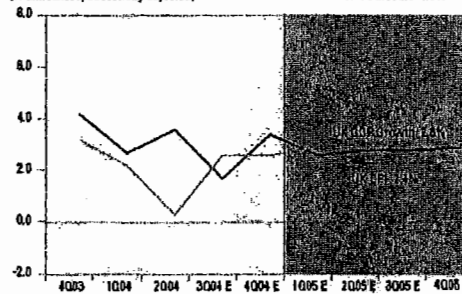
- Global economic growth will slow in 2005, but will remain above trend in all the major economies.
- While inflation will remain contained, inflation fears may rise.
- Equities should continue to outperform sluggish bonds.

Economic and Financial Forecasts (next 12 months)

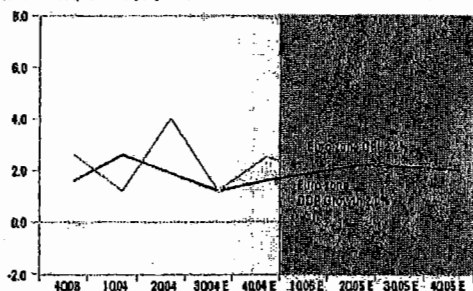
UNITED STATES
Quarter-on-Quarter Rate of Change
(% annualized, seasonally adjusted)



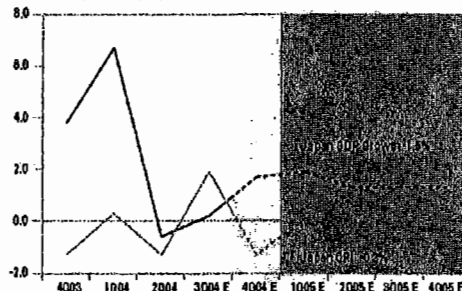
UNITED KINGDOM
Quarter-on-Quarter Rate of Change
(% annualized, seasonally adjusted)



EURO ZONE
Quarter-on-Quarter Rate of Change
(% annualized, seasonally adjusted)



JAPAN
Quarter-on-Quarter Rate of Change
(% annualized, seasonally adjusted)



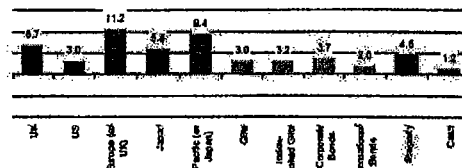
INVESTMENT STATISTICS - 31 DECEMBER 2004

3.2 HGI REPORT

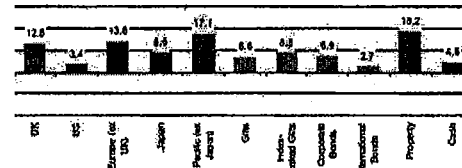
Market Review

- The UK equity market enjoyed a decisive upward move in the fourth quarter as speculation grew that UK interest rates had peaked and company results generally met expectations.
- The US market made modest progress, but the dollar's depreciation reduced returns for sterling investors.
- After a disappointing third quarter, European equities surged as markets focused on better corporate news and shrugged off worries about the impact of the weaker US dollar on profits.
- The Japanese market moved ahead as investors speculated that any weakness in the economy would prove short lived.
- Asian equity markets also rallied in the fourth quarter as worries about the health of the US and Chinese economies eased and the oil price declined.
- Government bond prices rose, despite accelerating inflation.
- Unrelenting demand from institutional investors supported inflation-linked bonds.
- Corporate bonds outperformed as investors sought higher yields.
- Property continues to do well.
- The dollar weakened to a record low against the euro and a 12-year low against sterling.

MARKET RETURNS - 3 MONTHS TO 31 DECEMBER 2004 (%)



MARKET RETURNS - 12 MONTHS TO 31 DECEMBER 2004 (%)



Returns are in sterling and include gross income. Property returns are to date.

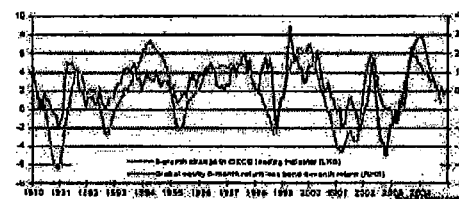
Source: GlobalVest, Henderson Global Investors

Performance figures are to date.

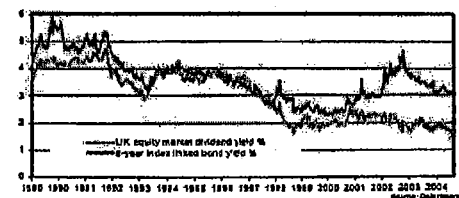
Market Themes

- An improving growth environment should favour equities over bonds.
- Having had a broadly neutral position in equities for most of 2004, when growth was slowing, we have increased our equity positions slightly by buying US equities, taking advantage of the market's underperformance in the fourth quarter.
- Bond yields are near long-term lows and are vulnerable to inflationary fears.

POSITION OF ECONOMIC CYCLE FAVOURS EQUITIES



BONDS COULD UNDERPERFORM AS ECONOMIC NEWS IMPROVES



INVESTMENT STATISTICS - 31 DECEMBER 2004

4. INVESTMENT MANAGER SUMMARY

4.1 STATISTICS

	HGI Equities	GSAM Equities	LGIM Equities	HGI Bonds
Mandate Term (from 1 January 2003)	3 Years	3 Years	3 Years	3 Years
Investment Style	Active	Active	Passive	Active
	Top-down, Macro	Top-down, Thematic	-	Duration, Sector
Investment Target > Benchmark (net of fees)	1.0%pa	1.0%pa	-	0.75%pa

4.2 PERFORMANCE

	Market Value (£m)	Performance (%)		
		Quarter	1 Year	Inception*
Henderson Global Equities	516.7	6.8	8.4	14.3
Benchmark **		6.5	11.0	16.3
Relative Return		0.3	-2.6	-2.0
Target (+1.0%pa)		6.8	12.0	17.3
Relative Return		0.0	-3.6	-3.0
Goldman Sachs Global Equities	328.9	6.3	13.7	17.7
Benchmark **		6.5	10.8	16.2
Relative Return		-0.2	2.9	1.5
Target (+1.0%pa)		6.7	11.8	17.2
Relative Return		-0.4	1.9	0.5
L&G Global Equities	559.2	6.7	11.2	16.3
Benchmark **		6.6	11.0	16.3
Relative Return		0.1	0.2	0.0
Henderson Global Bonds	456.4	3.0	5.8	5.5
Benchmark **		3.0	6.2	4.6
Relative Return		0.0	-0.4	0.9
Target (+0.75%pa)		3.2	6.9	5.3
Relative Return		-0.2	-1.1	0.2

* Annualised (%pa) from 1st January 2003.

** Refer to section 6.2 for details of investment manager benchmarks.

Detail of the **historic return attribution** for the investment managers is set out in ISC 413 Investment Management Overview.

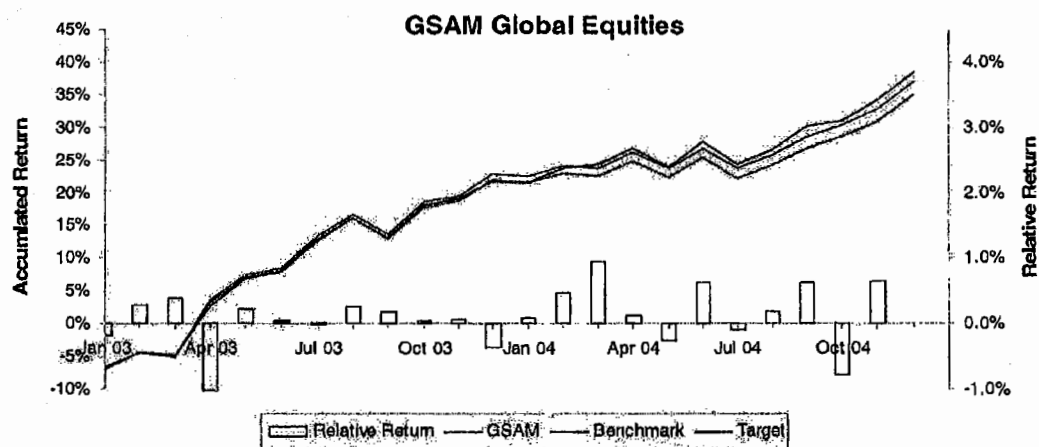
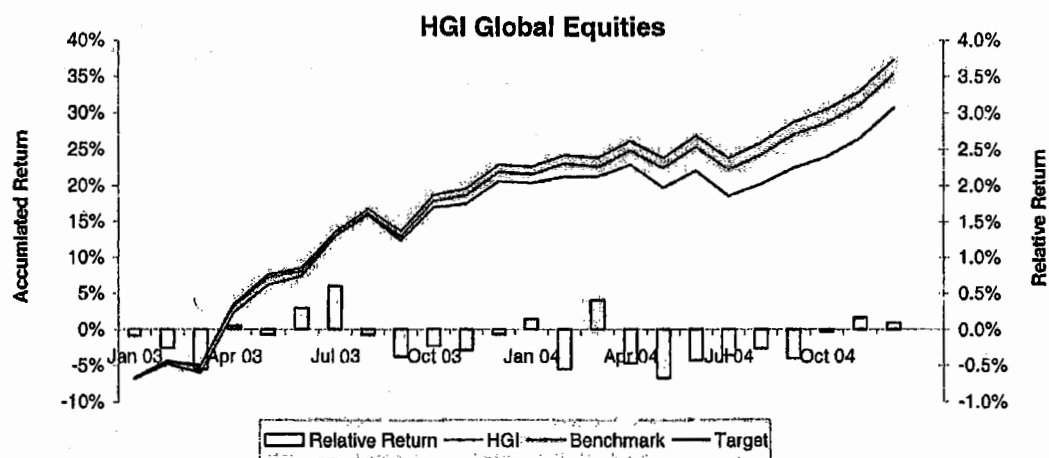
4.3 REVIEW

We review each active investment manager on a quarterly basis, meeting with the portfolio managers and other team personnel at their office. Discussion covers a range of issues relating to the portfolio, including performance, economic outlook and investment strategy and personnel. This information forms part of the monitoring reports reviewed quarterly by the Investment Strategy Committee.

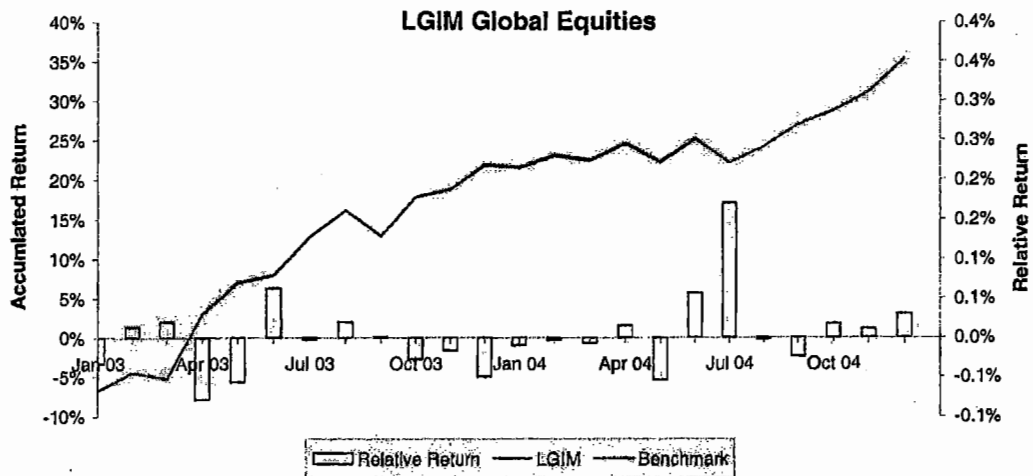
INVESTMENT STATISTICS - 31 DECEMBER 2004

4.4 PERFORMANCE GRAPHS

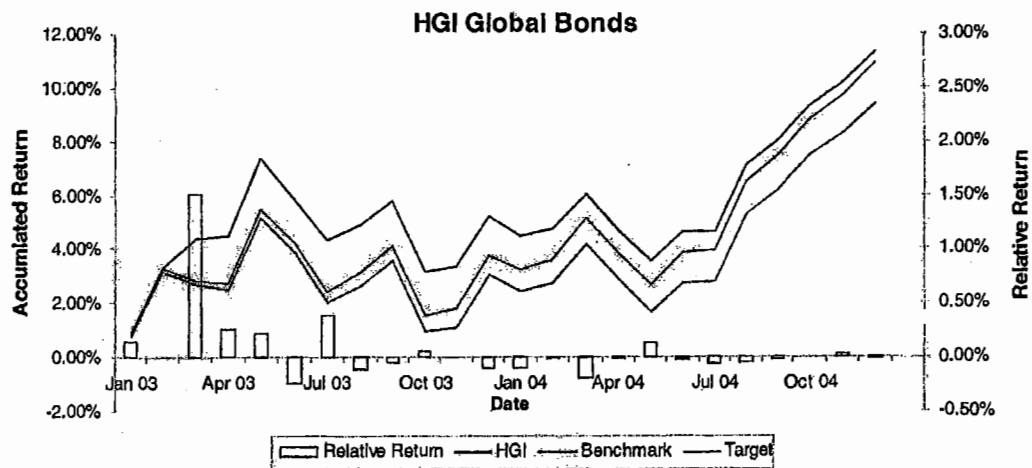
(a) Equities Investment Managers



INVESTMENT STATISTICS - 31 DECEMBER 2004



(b) Bonds Investment Manager



INVESTMENT STATISTICS - 31 DECEMBER 2004

5. LPFA INTERNALLY MANAGED ASSETS

5.1 INDEX-LINKED PORTFOLIO

(a) Investment Style

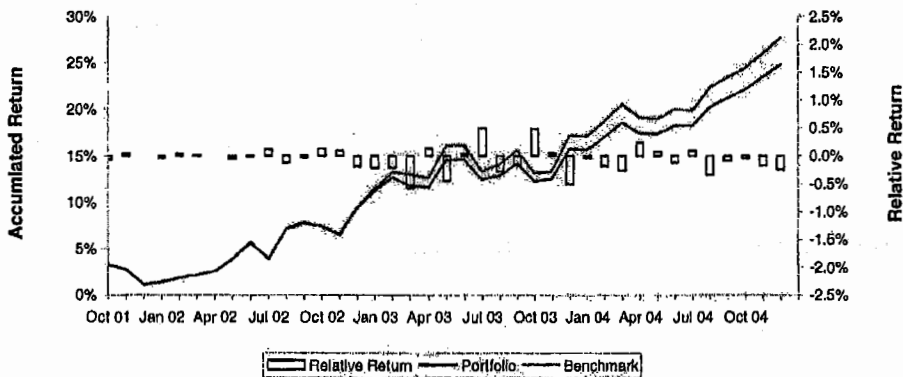
The core index-linked gilts portfolio is passively managed internally within the Pensioner Sub-Fund.

(b) Performance

	Market Value (£m)	Performance (%)		
		Quarter	1 Year	3 Years (pa)
Index-Linked Portfolio	800.5	3.0	7.9	7.3
Benchmark *		3.5	9.0	8.1
Relative Return		-0.5	-1.1	-0.8

* FTSE Actuaries Over 5 Year Indexed Linked Gilts Index.

Core Index-Linked Portfolio



(c) Valuation

	As at 31 December 2004							
SECURITIES	FACE VALUE £'000	UNIT COST £	PURCHASE COST £'000	UNIT PRICE £	CAPITAL VALUE £'000	ACCR. INT. £'000	TOTAL VALUE £'000	WEIGHT %
0-5 YEARS								
Treasury 2% I/L Stock 2006	21,563.0	163.8	35,310.0	269.5	58,101.5	518.2	58,619.7	7.3%
Treasury 2 1/2% I/L Stock 2009	30,160.0	147.1	44,377.0	244.1	73,623.6	202.3	73,825.9	9.2%
Anglian Water plc 5.5% I/L Stock 2008	2,700.0	143.3	3,870.0	173.5	4,684.5	73.9	4,758.4	0.6%
Total 0-5 YEARS	54,423.0		83,557.0		136,409.6	794.4	137,204.0	17.1%
> 5 YEARS								
Treasury 2 1/2% I/L Stock 2011	27,555.0	158.6	43,703.0	261.6	72,070.1	609.4	72,679.5	9.1%
Treasury 2 1/2% I/L Stock 2013	74,355.0	142.7	106,127.0	221.4	164,622.0	1,449.2	166,071.2	20.7%
Treasury 2 1/2% I/L Stock 2016	21,437.3	128.5	27,537.0	246.6	52,868.7	530.1	53,398.7	6.7%
Treasury 2 1/2% I/L Stock 2020	56,144.3	136.5	76,637.0	248.8	139,703.9	660.1	140,364.0	17.5%
Treasury 2 1/2% I/L Stock 2024	60,350.0	114.9	69,367.0	218.6	131,943.2	1,307.4	133,250.6	16.6%
Treasury 4 1/8% I/L Stock 2030	44,142.0	132.9	58,646.0	213.2	94,115.2	1,106.5	95,221.7	11.9%
Treasury 2% I/L Stock 2035	1,932.0	99.2	1,916.0	121.0	2,338.1	18.0	2,356.1	0.3%
Total >5 YEARS	285,915.6		383,933.0		657,661.1	5,680.6	663,341.7	82.9%
TOTAL	340,338.6		467,490.0		794,070.7	6,475.0	800,545.7	100.0%

(d) Activity

The Treasury 4^{3/8}% Index-Linked Gilt 2004 matured in October 2004. The proceeds of £102.04 million were allocated to a range of cash investments in the Pensioner Sub-Fund.

INVESTMENT STATISTICS - 30 DECEMBER 2004

5.2 OTHER ASSETS**(a) Investment Style**

These assets are actively managed within the Active Sub-Fund. The asset allocation is managed by LPFA with the underlying investments managed by appointed investment managers.

(b) Performance**Private Equity**

The private equity exposure is invested across a range of asset types. The Private Equity Investment Trusts are publicly traded and valued at market. The exposure to the Capital Fund, Private Equity and PFI are privately owned and currently valued at cost. The private equity managers are currently involved in the drawdown phase with a focus on seeking suitable investment opportunities and building value.

Reporting the performance of Other Assets at this stage of the investment process does not reflect the objectives of the early phase private equity managers.

All income distributions are reported and included in the performance of the private equity exposure.

Property

The property exposure is invested across a set of property unit trusts (PUT's) and is 97% drawdown. The PUT's are valued monthly on a net asset value (NAV) basis. The benchmark for the property exposure is the IPD Monthly Index.

All income distributions are reported and included in the PUT's performance.

(c) Valuation

	Asset Class	Commitment (£m)	Drawdown (£m)	Drawdown (%)	Market Value (£m)	Valuation Basis
Private Equity	Private Equity	125.0	8.2	7	8.2	Cost
Private Equity Inv. Trusts	Private Equity	26.7	26.7	100	28.9	Market
The Capital Fund	Private Equity	0.5	0.5	100	0.5	Cost
PUT's	Property	100.0	97.0	97	106.6	NAV
PFI	Private Equity	11.6	3.1	27	3.1	Cost
Total		263.8	135.5	51	147.3	

INVESTMENT STATISTICS - 31 DECEMBER 2004

6. TARGET ALLOCATION**6.1 SUB-FUNDS****Active Sub-Fund**

Asset Class	Sector (%)	Asset Class (%)	Index
Active Bonds		15	
- UK Gilts	7.125		FTSE Actuaries Over 5 Year UK Gilts
- UK Index Linked Gilts	3.000		FTSE Actuaries Over 5 Year Index-Linked Gilts
- Overseas Bonds	4.500		JP Morgan Traded Government Bond - World ex-UK
- Cash	3.750		LIBID 7 Day
Equities		70	
- UK	35.0		FTSE All Share
- North America	17.5		S&P 500
- Europe (ex-UK)	10.5		FTSE World Europe (ex-UK)
- Japan	3.5		TOPIX
- Other	3.5		MSCI AC Pacific (ex-Japan)
Other Assets		15	
- Property	7.5		IPD Monthly
- Private Equity	7.5		FTSE All Share + 2.5%pa

Pensioner Sub-Fund

Asset Class	Sector (%)	Control Range (%)	Index
Core Index-Linked Gilts		56	FTSE Actuaries Over 5 Year Index-Linked Gilts
Cash		11	LIBID 7 Day
Active Bonds		20	
- UK Gilts	9.5		FTSE Actuaries Over 5 Year UK Gilts
- UK Index Linked Gilts	4.0		FTSE Actuaries Over 5 Year Index-Linked Gilts
- Overseas Bonds	6.0		JP Morgan Traded Government Bond - World ex-UK
- Cash	0.0		LIBID 7 Day
Equities		13	
- UK	6.50		FTSE All Share
- North America	3.25		S&P 500
- Europe (ex-UK)	1.95		FTSE World Europe (ex-UK)
- Japan	0.65		TOPIX
- Other	0.65		MSCI AC Pacific (ex-Japan)

INVESTMENT STATISTICS - 31 DECEMBER 2004

6.2 INVESTMENT MANAGERS

HGI Equities

Asset Class	HGI Active (%)	Control Range (%)	Index
UK Equities	50	+/- 10	FTSE All Share
Overseas Equities	50	+/- 10	
- North America	25	+/- 6	FTSE World North America *
- Europe	15	+/- 4	FTSE World Europe (ex-UK)
- Japan	5	+/- 4	TOPIX
- Pacific (ex-Japan)	5	+/- 2	MSCI AC Pacific Free (ex-Japan)
- Emerging Markets	0	+ 2	
Cash	0	+ 6	

GSAM Equities

Asset Class	GSAM Active (%)	Control Range (%)	Index
UK Equities	50	+/- 10	FTSE 350 ex-Investment Trusts *
Overseas Equities	50	+/- 10	
- North America	25	+/- 6	S&P 500
- Europe	15	+/- 4	FTSE World Europe (ex-UK)
- Japan	5	+/- 4	MSCI Japan *
- Pacific (ex-Japan)	5	+/- 2	MSCI Pacific (ex-Japan)
- Emerging Markets	0	+ 2	
Cash	0	+ 6	

LGIM Equities

Asset Class	LGIM Passive (%)	Control Range (%)	Index
UK Equities	50	+/- 10	FTSE All Share
Overseas Equities	50	+/- 10	
- North America	25	+/- 6	FTSE World North America
- Europe	15	+/- 4	FTSE World Europe (ex-UK)
- Japan	5	+/- 4	FTSE World Japan Index
- Pacific (ex-Japan)	5	+/- 2	FTSE World Developed Asia Pacific (ex-Japan)
- Emerging Markets	0	+ 2	
Cash	0	+ 6	

HGI Bonds

Asset Class	HGI Active (%)	Control Range (%)	Index
UK Gilts	47.5	+/- 20	FTSE Actuaries Over 5 Year UK Gilts
UK Indexed Linked	20.0	+/- 15	FTSE Actuaries Over 5 Year Index-Linked Gilts
Overseas Bonds	30.0	+/- 15	JP Morgan Traded Government Bond - World ex-UK
Corporate Bonds	0.0	+ 30	
Cash	2.5	+/- 2.5	LIBID 7 Day

Note:

1. The actively managed funds will not automatically rebalance their portfolios each quarter end. The portfolio will be rebalanced only upon authorisation from the LPFA Board. As such, the benchmark will drift in line with market movement.
2. The last rebalance was 30 June 2004 (HGI) and 30 September 2004 (GSAM).
3. The LGIM Passive portfolio is rebalanced on a monthly basis.
4. Some regional benchmark indices have been changed (denoted *).

ISC 420
ANNEX 2

As at 23 February 2005

LPFA TOTAL FUND		ACTIVE SUB FUND										PENSIONER SUB FUND										TOTAL FUND			
	LPFA £m	Bonds			Equities			Equities			TOTAL £m	Actual %	Target %	LPFA £m	Bonds			Equities			TOTAL £m	Actual %	Target %	TOTAL £m	%
		£m	HGI	IGM	£m	HGI	IGM	£m	HGI	IGM					£m	HGI	IGM	£m	HGI	IGM					
Index-Linked Bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	790.0	0.0	0.0	0.0	0.0	0.0	790.0	58	67	790.0	27	
Active Bonds	0.0	171.1	0.0	0.0	0.0	0.0	0.0	171.1	11	15	0.0	0.0	0.0	0.0	279.1	0.0	0.0	0.0	0.0	279.1	20	20	450.2	15	
UK Gilts		75.4						75.4							123.1					123.1			198.5		
UK Corporates		2.2						2.2							3.5					3.5			5.7		
UK Index-Linked Gilts		22.5						22.5							36.6					36.6			59.1		
Overseas Bonds		63.5						63.5							103.6					103.6			167.1		
Cash & Equivalents		7.5						7.5							12.3					12.3			19.8		
Equities	0.0	0.0	360.5	527.2	339.2	527.2	339.2	1,226.9	76	70	0.0	0.0	0.0	0.0	0.0	0.0	211.7	0.0	211.7	211.7	15	13	1,438.6	48	
UK			181.6	250.3	150.8	250.3	150.8	582.7									106.6		106.6	106.6			689.3		
International			178.7	273.4	186.2	273.4	186.2	638.3									104.9		104.9	104.9			743.2		
Cash & Equivalents			0.3	3.5	2.2	3.5	2.2	6.0									0.1		0.1	0.1			6.1		
Other Assets	205.9	0.0	0.0	0.0	0.0	0.0	0.0	205.90	13	15	90.6	90.6	0.0	0.0	0.0	0.0	0.0	0.0	90.6	90.6	7	0	296.5	10	
Private Equity	9.3							9.3											0.0	0.0			9.3		
Private Equity Investment Trusts	29.6							29.6											0.0	0.0			29.6		
The Capital Fund	0.5							0.5											0.0	0.0			0.5		
PFI	110.6							110.6											0.0	0.0			110.6		
Miscellaneous	3.8							3.8											0.0	0.0			3.8		
Cash & Equivalents	0.0							0.0											0.0	0.0			0.0		
	52.1							52.1											90.6	90.6			142.7		
TOTAL	205.9	171.1	360.5	527.2	339.2	527.2	339.2	1,603.9	100	100	880.6	880.6	279.1	211.7	211.7	1,371.4	100	100	1,371.4	100	100	2,975.3	100		

The Pensioner/Active Sub-Fund split is as follows:

	Pensioner	Active
LCM Equities*	37%	63%
HGI Bonds*	62%	38%

INVESTMENT STATISTICS - June 2006

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Whilst the LPFA believes that the information contained in the report is correct at the date of publication, no warranty or representation is given to this effect and no responsibility can be accepted by the LPFA to any users of the information published for any action taken on the basis of the information.

All performance data is supplied by WM Company. Benchmark indices presented in the report are sourced from the compiler of the indices.

Past performance is not indicative of future performance which may vary.

INVESTMENT STATISTICS – 30 JUNE 2005

PURPOSE AND SUMMARY

- To set out the latest reported details of the Fund's quarterly valuation and performance by way of background information as at 30th June 2005.

GOVERNANCE

- To comply with the Freedom of Information Act (FOI) this report for the quarter ended 30th June 2005 is on the corporate FOI website.

PUBLIC

**INVESTMENT
STRATEGY
COMMITTEE: 20.07.05**

REF: ISC 449

DECISIONS

Members are asked to note:

- (1) the quarterly investment statistics.

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London Pensions Fund Authority



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NOTE

All performance and valuation data is as at 30th June 2005 and was provided by WM Company, the performance measurement service.

INVESTMENT STATISTICS - 30 JUNE 2005

LPFA INVESTMENT STRATEGY

(a) Investment Objective

To follow an investment strategy which will maintain the solvency of the Fund, while delivering low and stable contribution rates, and which ensures all statutory payments are made accurately and on time.

(b) Investment Strategy Overview

The Fund's assets are divided into two Sub-Funds to match the specific nature of the contributing employer organisations:

Pensioner Sub-Fund comprises pensioners and deferred beneficiaries of employers' no longer in existence and contributors from employers that no longer give access to membership of the LPFA Fund.

Active Sub-Fund comprises all scheduled and admitted bodies that remain open to membership of the LPFA Fund for their employees.

(c) Strategic Benchmark

The total Fund has no specific strategic benchmark. Its performance is the sum of the weighted performance of the Active and Pensioner Sub-Funds. The investment strategy for each Sub-Fund has been developed to match the liability profile of the respective memberships: The strategic benchmark allocation is:

Asset Class	Active	Pensioner	Manager
Total Equities	70%	13%	
UK Equities	35%	6.5%	HGI/ GSAM/ LGIM
Overseas Equities ^{1,2}	35%	6.5%	HGI/ GSAM/ LGIM
Total Bonds	15%	20%	
UK Bonds	7.1%	9.5%	HGI
Index Linked Bonds	3.0%	4.0%	HGI
Overseas Bonds	4.5%	6.0%	HGI
Cash	0.4%	0.5%	HGI
Core Index Linked Bonds	15%	67%	LPFA
Other Investments	15%	0%	
Property ³	7.5%		Various Managers
Private Equity ⁴	7.5%		Various Managers
	100%	100%	

1. The LGIM Global Equities Portfolio and the Core Index Linked Bonds Portfolio are passively managed.

2. The HGI and GSAM Global Equities Portfolios have a mandate for the Active sub-fund only.

3. Deutsche, Hermes, Merrill Lynch, Threadneedle and UBS.

4. Harbourvest, Pantheon, LGT, IIC Partnership and The Capital Fund.

(d) Types of Investments

The powers and duties of the Board to invest Fund assets are set out in the Local Government Pension Scheme (Management and Investment of Funds) Regulations 1998 as amended. In broad terms, assets may be invested, in accordance with the regulations, in equities, fixed interest and other bonds and property in the UK and overseas. The Regulations specify other investment instruments that may be used, e.g. financial futures, traded options, insurance contracts, stock lending, sub-underwriting contracts.

INVESTMENT STATISTICS - 30 JUNE 2005

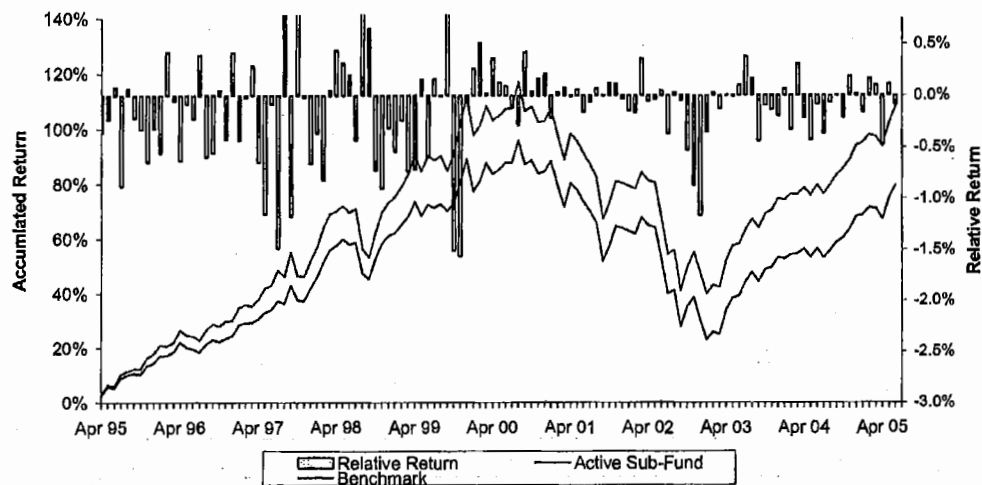
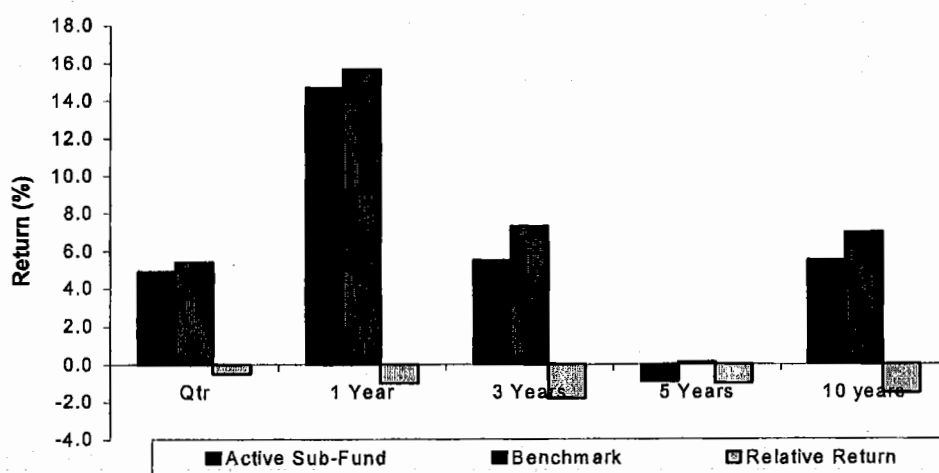
2. SUB-FUND SUMMARY

2.1 PERFORMANCE

	Market Value (£m)	Quarter	1 Year	3 Years (pa)	5 Years (pa)	10 Years (pa)
Active Sub-Fund	1,688.4	4.9	14.7	5.5	-0.9	5.5
Benchmark *		5.4	15.7	7.3	0.1	7.0
<i>Relative Return</i>		<i>-0.5</i>	<i>-1.0</i>	<i>-1.8</i>	<i>-1.0</i>	<i>-1.5</i>
Pensioner Sub-Fund	1,393.7	4.2	10.7	7.4	4.8	8.0
Benchmark *		4.6	11.5	7.4	4.5	7.9
<i>Relative Return</i>		<i>-0.4</i>	<i>-0.8</i>	<i>0.0</i>	<i>0.3</i>	<i>0.1</i>

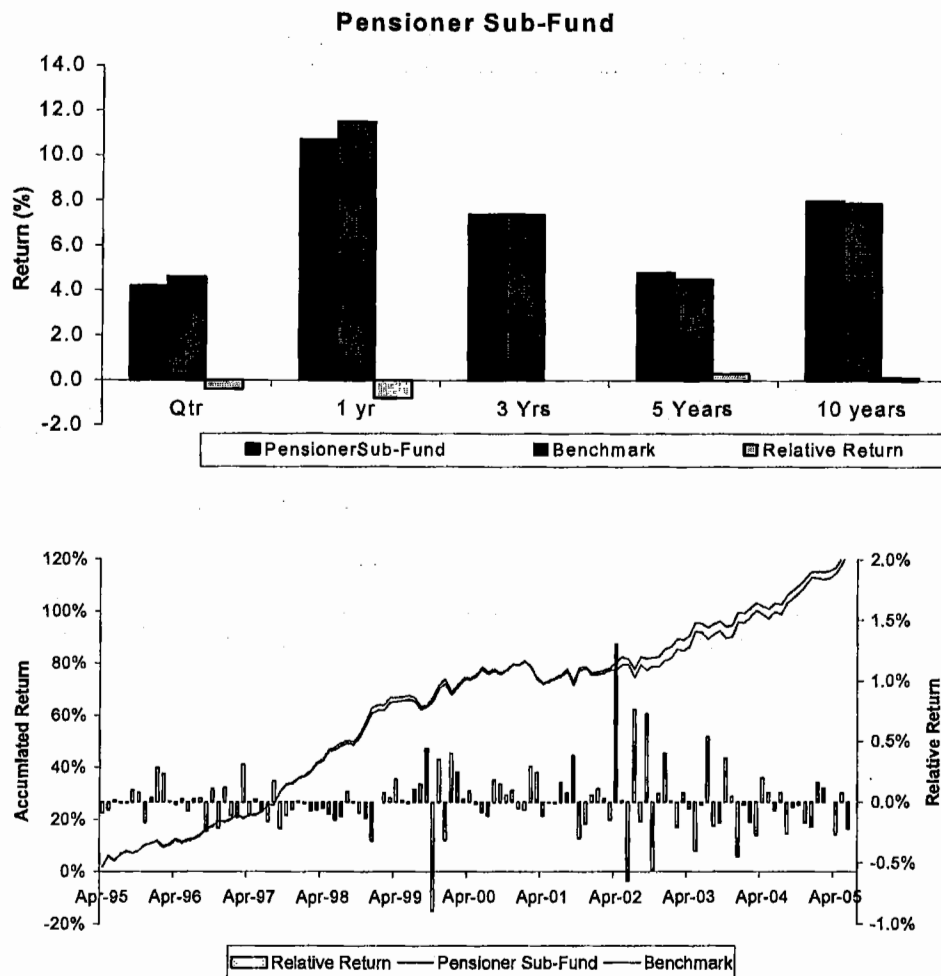
* Refer to section 6.1 for details of Sub-Fund benchmarks.

(a) Active Sub-Fund



INVESTMENT STATISTICS - 30 JUNE 2005

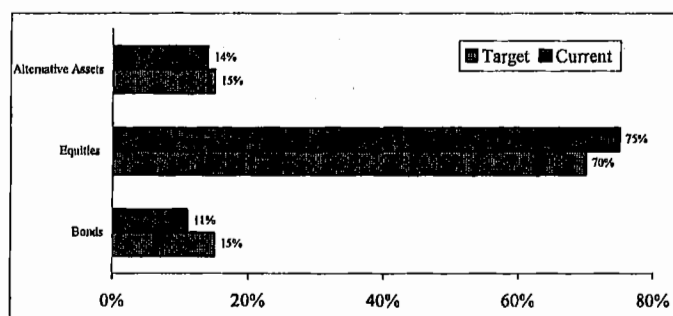
(b) Pensioner Sub-Fund



2.2 ASSET ALLOCATION

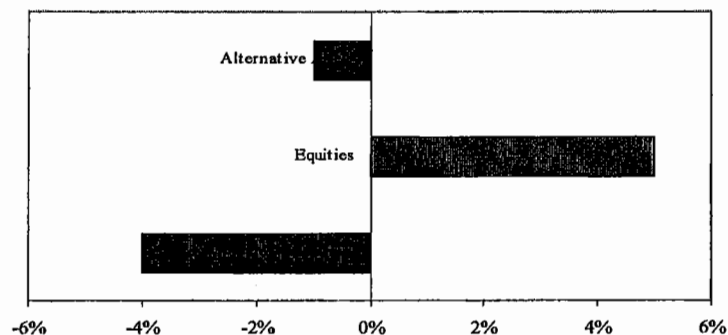
(a) Active Sub-Fund

Current vs. Target Allocation



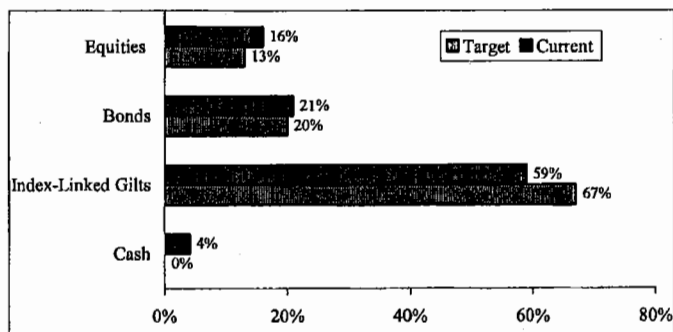
INVESTMENT STATISTICS - 30 JUNE 2005

Active Allocation (Current less Target Allocation)

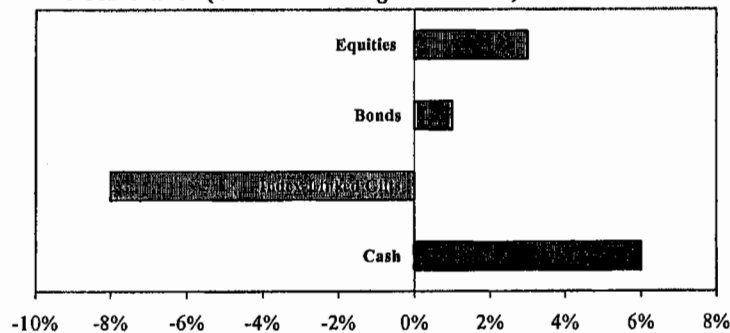


(b) Pensioner Sub-Fund

Current vs. Target Allocation



Active Allocation (Current less Target Allocation)



2.3 PERFORMANCE ATTRIBUTION

Performance attribution data is provided by WM. At the time this report was produced the data was not yet available.

INVESTMENT STATISTICS - 30 JUNE 2005

2.4 VALUATION

	ACTIVE SUB FUND						PENSIONER SUB FUND						TOTAL FUND	
	Bonds			Equities			Bonds			Equities			TOTAL	%
	LPFA	HGI*	LGM*	LPFA	HGI*	LGM*	LPFA	HGI*	LGM*	LPFA	HGI*	LGM*		
Index-Linked Bonds	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	%
Active Bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	821.7	27
UK Gilts	0.0	177.6	0.0	0.0	0.0	0.0	0.0	289.7	0.0	0.0	124.2	0.0	467.3	15
UK Corporates		76.1			6.8			11.2			11.2		200.3	
UK Index-Linked Gilts		30.4			30.4			49.6			49.6		18.0	
Overseas Bonds		58.7			58.7			95.9			95.9		80.0	
Cash & Equivalents		5.5			5.5			8.9			8.9		154.6	
Equities	0.0	0.0	379.3	542.5	348.5	1,270.3	0.0	0.0	222.8	0.0	222.8	16	1,493.1	48
UK			189.1	252.3	175.7	617.1			111.0		111.0	9	728.1	23
International			190.1	284.9	171.7	646.7			111.6		111.6	7	758.3	25
Cash & Equivalents			0.2	5.3	1.1	6.6			0.1		0.1		6.7	
Alternative Assets	240.5	0.0	0.0	0.0	0.0	240.50	59.5	0.0	0.0	59.5	0.0	4	300.0	10
Private Equity						43.9						0	43.9	1
Private Equity	10.0					10.0						0	10.0	
Private Equity Investment Trusts	33.4					33.4						0	33.4	
The Capital Fund	0.5					0.5						0	0.5	
Property						117.7						0		
PFI	3.5					3.5						0	3.5	
PUTs	114.2					114.2						0	114.2	4
Cash														
Cash & Equivalents	78.9					78.9	59.5			59.5		4	138.4	5
TOTAL	240.5	177.6	379.3	542.5	348.5	1,638.4	881.2	289.7	222.8	1,393.7			3,082.1	100

The Pensioner/Active Sub-Fund split is as follows:

	Pensioner	Active
LGM Equities*	37%	63%
HGI Bonds*	62%	38%

INVESTMENT STATISTICS – 30 JUNE 2005

3. MARKET REVIEW AND OUTLOOK**3.1 HGI REPORT**

Real GDP Growth	04	05	06
US	4.4	3.3	2.9
Japan	2.6	1.7	2.0
Euro-12	1.8	1.3	1.7
UK	3.1	2.2	1.9
G7	3.2	2.4	2.3
Asia x Japan	7.5	7.0	6.9
World	5.2	4.3	4.3

- We forecast global GDP to grow at its trend rate, reflecting high oil prices and rising US interest rates. The inventory correction in manufacturing should be over before the end of 2005.

- Healthy income growth could ensure that consumer spending in the US grows rapidly enough to offset continued weakness in Europe.

Official Interest Rates	27 June 2005	Jun 2006
US	3.00	4.00
Japan	0.00	0.00
Euro-12	2.00	2.00
UK	4.75	4.00

- The Fed is set to raise US interest rates until it has restored them to a more normal level, assumed to be around 4%.

- The ECB may cut rates if the euro-zone economy weakens further.

- Slowing consumer spending growth is likely to prompt cuts in UK rates.

10 year bond yields	27 June 2005	Jun 2006
US	3.90	4.25
Japan	1.15	1.50
Euro-12	3.12	3.25
UK	4.17	4.00
UK IL	1.42	1.50
US IL	1.56	1.75

- Bond markets have continued to rally as core inflation remains well behaved and monetary policy is not expected to be excessively restrictive.

Equity returns To Jun 2006	Local: Sterling, Dollar		
US	9	17	9
Japan	4	17	9
Euro-12	12	14	6
UK	10	10	2
MSCI Far East x Japan (US\$)		15	7
MSCI Emerging Markets		12	5

- Earnings growth will probably slow in 2005 and 2006, as margin expansion proves harder to achieve.

- Cost cutting and restructuring efforts in Japan and Europe will help to moderate the earnings slowdown there.

- Prospective returns to equities over the next 12 months are modest, but consistent with a moderate growth and low inflation environment.

- Returns may be best where earnings growth holds up relatively well.

INVESTMENT STATISTICS - 30 JUNE 2005

4. INVESTMENT MANAGER SUMMARY**4.1 STATISTICS**

	HGI Equities	GSAM Equities	LGIM Equities	HGI Bonds
Mandate Term (from 1 January 2003)	3 Years	3 Years	3 Years	3 Years
Investment Process	Active	Active	Passive	Active
Investment Style	Top-down, Macro	Top-down, Thematic	-	Duration, Sector
Investment Target > Benchmark (net of fees)	1.0%pa	1.0%pa	-	0.75%pa

4.2 PERFORMANCE

June quarter 2005 performance is based on estimates provided by the investment managers.

	Market Value (£m)	Perf Quarter	mance (' 1 Year	Inception ^a
Henderson Global Equities	542.5	4.9	14.2	14.2
Benchmark **		5.7	16.4	16.3
<i>Relative Return</i>		-0.8	-2.2	-2.1
Target (+1.0%pa)		5.9	17.4	17.3
<i>Relative Return</i>		-1.0	-3.2	-3.1
Goldman Sachs Global Equities	348.5	4.9	16.7	17.3
Benchmark **		5.6	15.7	16.0
<i>Relative Return</i>		-0.7	1.0	1.3
Target (+1.0%pa)		5.8	16.7	17.0
<i>Relative Return</i>		-0.9	0.0	0.3
L&G Global Equities	602.1	5.7	16.6	16.3
Benchmark **		5.8	16.4	16.2
<i>Relative Return</i>		-0.1	0.2	0.1
Henderson Global Bonds	467.3	4.7	10.7	6.1
Benchmark **		4.9	11.1	5.4
<i>Relative Return</i>		-0.2	-0.4	0.7
Target (+0.75%pa)		5.1	11.9	6.2
<i>Relative Return</i>		-0.4	-1.2	-0.1

^a Annualised (%pa) from 1st January 2003.

** Refer to section 6.2 for details of investment manager benchmarks.

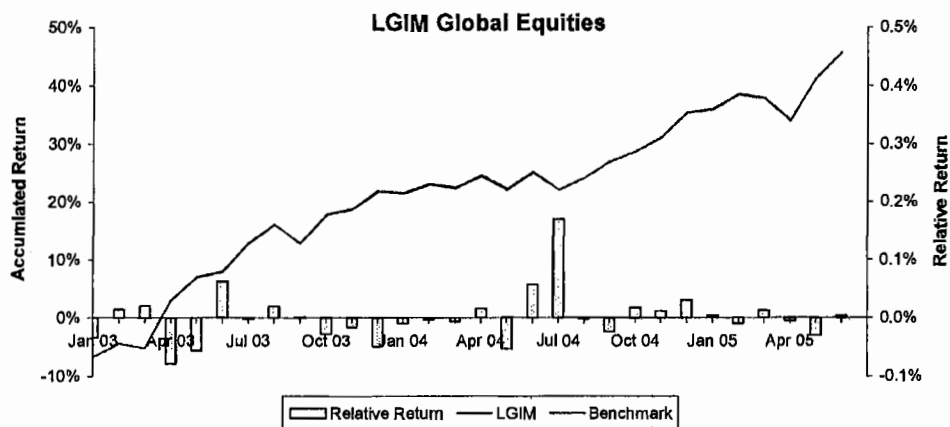
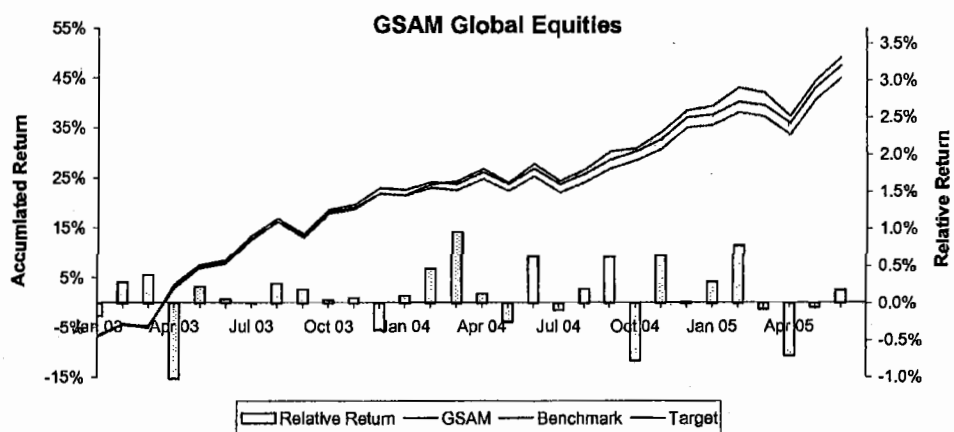
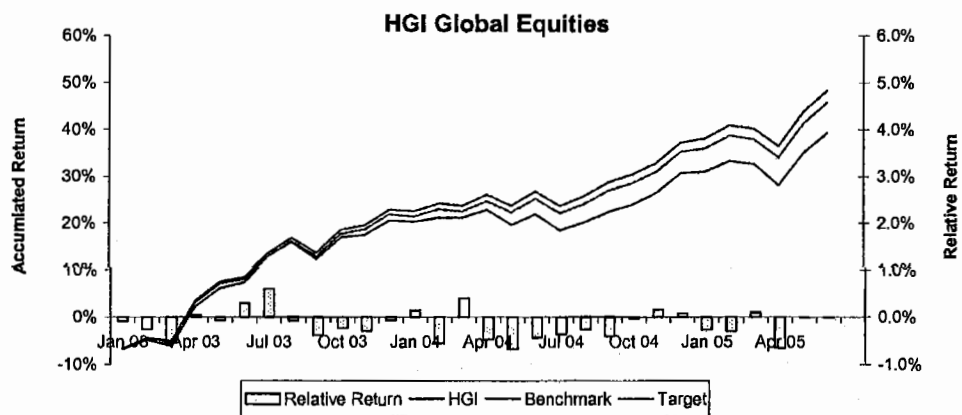
4.3 REVIEW

We review each active investment manager on a quarterly basis, meeting with the portfolio managers and other team personnel at their office. Discussion covers a range of issues relating to the portfolio, including performance, economic outlook, investment strategy and personnel. This information forms part of the monitoring reports reviewed quarterly by the Investment Strategy Committee.

INVESTMENT STATISTICS - 30 JUNE 2005

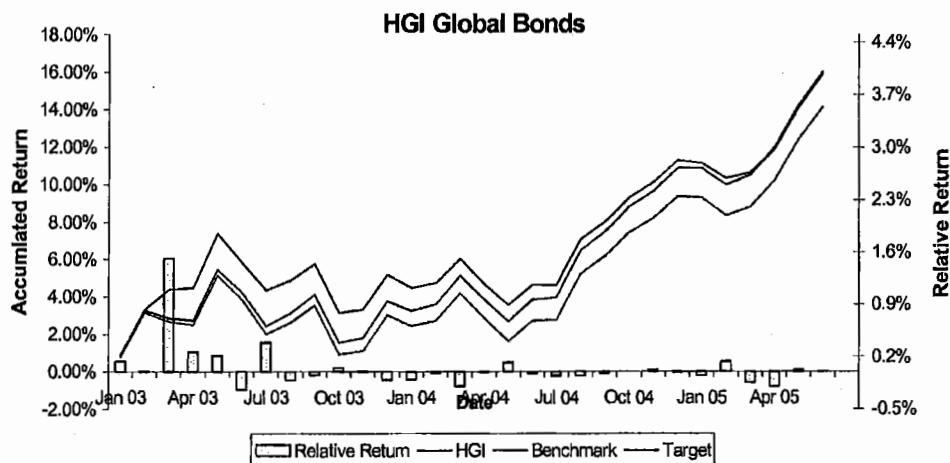
4.4 PERFORMANCE GRAPHS

(a) Equities Investment Managers



INVESTMENT STATISTICS - 30 JUNE 2005

(b) Bonds Investment Manager



INVESTMENT STATISTICS 30 JUNE 2005

5. LPFA INTERNALLY MANAGED ASSETS

5.1 INDEX-LINKED PORTFOLIO

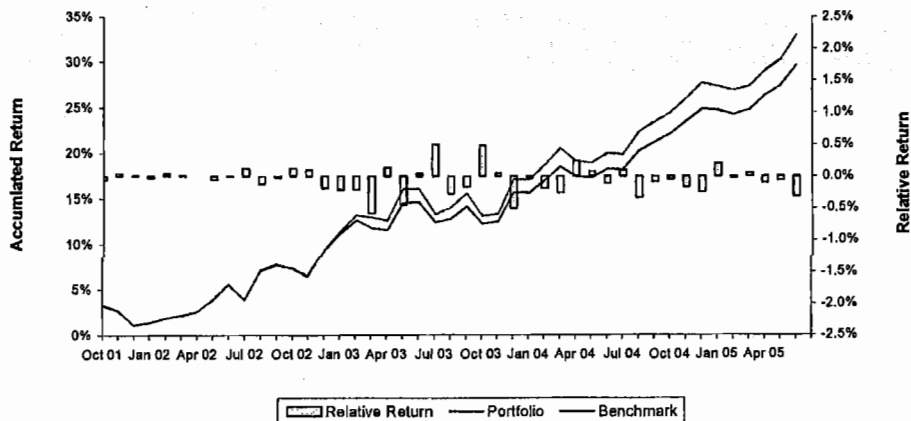
(a) Investment Style

The core index-linked gilts portfolio is passively managed internally within the Pensioner Sub-Fund.

(b) Performance (Estimated)

	Market Value (£m)	Performance (%)	Quarter	1 Year	3 Years (pa)
Index-Linked Portfolio	821.7	3.9	9.7	7.1	
Benchmark *		4.4	10.8	8.0	
Relative Return		-0.5	-1.1	-0.9	

* FTSE Actuaries Over 5 Year Indexed Linked Gilts Index.



(c) Valuation

SECURITIES	As at 30 June 2005							
	FACE VALUE £'000	UNIT COST £	PURCHASE COST £'000	UNIT PRICE £	CAPITAL VALUE £'000	ACCR. INT. £'000	TOTAL VALUE £'000	WEIGHT %
0-5 YEARS								
Treasury 2% 1/L Stock 2006	21,563.0	163.8	35,310.0	272.6	58,789.4	524.9	59,314.3	7.2%
Treasury 2 1/2% 1/L Stock 2009	30,160.0	147.1	44,377.0	248.8	75,044.1	203.2	75,247.3	9.2%
Anglian Water plc 5.5% 1/L Stock 2008	2,700.0	143.3	3,870.0	175.6	4,740.7	72.8	4,813.5	0.6%
Total 0-5 YEARS	54,423.0		83,557.0		138,574.1	800.9	139,375.0	17.0%
> 5 YEARS								
Treasury 2 1/2% 1/L Stock 2011	27,555.0	158.6	43,703.0	267.2	73,635.2	614.8	74,250.0	9.0%
Treasury 2 1/2% 1/L Stock 2013	74,355.0	142.7	106,127.0	226.9	168,741.2	1,464.9	170,206.1	20.7%
Treasury 2 1/2% 1/L Stock 2016	21,437.3	128.5	27,537.0	253.8	54,405.7	531.4	54,937.1	6.7%
Treasury 2 1/2% 1/L Stock 2020	56,144.3	136.5	76,637.0	256.8	144,184.2	657.3	144,841.5	17.6%
Treasury 2 1/2% 1/L Stock 2024	60,350.0	114.9	69,367.0	225.9	136,318.6	1,322.7	137,641.3	16.8%
Treasury 4 1/8% 1/L Stock 2030	44,142.0	132.9	58,646.0	219.5	96,878.4	1,118.8	97,997.2	11.9%
Treasury 2% 1/L Stock 2035	1,932.0	99.2	1,916.0	125.5	2,424.7	18.0	2,442.7	0.3%
Total >5 YEARS	285,915.6		383,933.0		676,588.1	5,727.9	682,315.9	83.0%
TOTAL	340,338.6		467,490.0		815,162.2	6,528.8	821,691.0	100.0%

(d) Activity

Nil.

INVESTMENT STATISTICS 30 JUNE 2005

5.2 ALTERNATIVE ASSETS**(a) Investment Style**

These assets are actively managed within the Active Sub-Fund. The asset allocation is managed by LPFA with the underlying investments managed by appointed investment managers.

(b) Performance**Private Equity**

The private equity exposure is invested across a range of asset types. The Private Equity Investment Trusts are publicly traded and valued at market. The exposure to the Capital Fund and Private Equity are privately owned and currently valued at cost. The private equity managers are currently involved in the drawdown phase with a focus on seeking suitable investment opportunities and building value.

Reporting the performance of Alternative Assets at this stage of the investment process does not reflect the objectives of the early phase private equity managers.

All income distributions are reported and included in the performance of the private equity exposure.

Property

The property exposure is invested across a set of property unit trusts (PUT's) and PFI's. The PUT's are valued monthly on a net asset value (NAV) basis. The benchmark for the property exposure is the IPD Monthly Index. The PFI's are currently valued at cost.

All income distributions are reported and included in the performance calculation.

(c) Valuation

	Asset Class	Commitment (£m)	Draw (£m)	own (%)	Market Value (£m)	Valuation Basis
Private Equity						
Private Equity	Private Equity	125.0	10.2	7	10.0	Cost
Private Equity Inv. Trusts	Private Equity	26.7	26.7	100	33.4	Market
The Capital Fund	Private Equity	5.0	0.5	10	0.5	Cost
Property						
PFI	Property	25.0	4.0	27	3.4	Cost
PUT's	Property	100.0	100.0	100	114.2	NAV
Total		281.7	140.9	50	161.6	

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6. TARGET ALLOCATION**6.1 SUB-FUNDS****Active Sub-Fund**

Asset Class	Sector (%)	Asset Class (%)	Index
Active Bonds		15	
- UK Gilts	7.125		FTSE Actuaries Over 5 Year UK Gilts
- UK Index Linked Gilts	3.000		FTSE Actuaries Over 5 Year Index-Linked Gilts
- Overseas Bonds	4.500		JP Morgan Traded Government Bond - World ex-UK
- Cash	3.750		LIBID 7 Day
Equities		70	
- UK	35.0		FTSE All Share
- North America	17.5		S&P 500
- Europe (ex-UK)	10.5		FTSE World Europe (ex-UK)
- Japan	3.5		TOPIX
- Other	3.5		MSCI AC Pacific (ex-Japan)
Other Assets		15	
- Property	7.5		IPD Monthly
- Private Equity	7.5		FTSE All Share + 2.5%pa

Pensioner Sub-Fund

Asset Class	Sector (%)	Control Range (%)	Index
Core Index-Linked Gilts		56	FTSE Actuaries Over 5 Year Index-Linked Gilts
Cash		11	LIBID 7 Day
Active Bonds		20	
- UK Gilts	9.5		FTSE Actuaries Over 5 Year UK Gilts
- UK Index Linked Gilts	4.0		FTSE Actuaries Over 5 Year Index-Linked Gilts
- Overseas Bonds	6.0		JP Morgan Traded Government Bond - World ex-UK
- Cash	0.0		LIBID 7 Day
Equities		13	
- UK	6.50		FTSE All Share
- North America	3.25		S&P 500
- Europe (ex-UK)	1.95		FTSE World Europe (ex-UK)
- Japan	0.65		TOPIX
- Other	0.65		MSCI AC Pacific (ex-Japan)

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6.2 INVESTMENT MANAGERS

HGI Equities

Asset Class	HGI Active (%)	Control Range (%)	Index
UK Equities	50	+/- 10	FTSE All Share
Overseas Equities	50	+/- 10	
- North America	25	+/- 6	FTSE World North America *
- Europe	15	+/- 4	FTSE World Europe (ex-UK)
- Japan	5	+/- 4	TOPIX
- Pacific (ex-Japan)	5	+/- 2	MSCI AC Pacific Free (ex-Japan)
- Emerging Markets	0	+ 2	
Cash	0	+ 6	

GSAM Equities

Asset Class	GSAM Active (%)	Control Range (%)	Index
UK Equities	50	+/- 10	FTSE 350 ex-Investment Trusts *
Overseas Equities	50	+/- 10	
- North America	25	+/- 6	S&P 500
- Europe	15	+/- 4	FTSE World Europe (ex-UK)
- Japan	5	+/- 4	MSCI Japan *
- Pacific (ex-Japan)	5	+/- 2	MSCI Pacific (ex-Japan)
- Emerging Markets	0	+ 2	
Cash	0	+ 6	

LGIM Equities

Asset Class	LGIM Passive (%)	Control Range (%)	Index
UK Equities	50	+/- 10	FTSE All Share
Overseas Equities	50	+/- 10	
- North America	25	+/- 6	FTSE World North America
- Europe	15	+/- 4	FTSE World Europe (ex-UK)
- Japan	5	+/- 4	FTSE World Japan Index
- Pacific (ex-Japan)	5	+/- 2	FTSE World Developed Asia Pacific (ex-Japan)
- Emerging Markets	0	+ 2	
Cash	0	+ 6	

HGI Bonds

Asset Class	HGI Active (%)	Control Range (%)	Index
UK Gilts	47.5	+/- 20	FTSE Actuaries Over 5 Year UK Gilts
UK Indexed Linked	20.0	+/- 15	FTSE Actuaries Over 5 Year Index-Linked Gilts
Overseas Bonds	30.0	+/- 15	JP Morgan Traded Government Bond - World ex-UK
Corporate Bonds	0.0	+ 30	
Cash	2.5	+/- 2.5	LIBID 7 Day

Note:

1. The actively managed funds will not automatically rebalance their portfolios each quarter end. The portfolio will be rebalanced only upon authorisation from the LPFA Board. As such, the benchmark will drift in line with market movement.
2. The last rebalance was 30 June 2004 (HGI) and 30 September 2004 (GSAM).
3. The LGIM Passive portfolio is rebalanced on a monthly basis.
4. Some regional benchmark indices have been changed (denoted *).

APPENDIX C
Third Millennium Options Gain Calculation

CONTRACTS ENTERED							CONTRACTS WRITTEN				
#	DESCRIPTION	Ticker	DATE	QUANTITY	PRICE	AMOUNT	DATE	QUANTITY	PRICE	AMOUNT	PROFIT (LOSS)
1	March 45 CALL	IDKI	3/18/2004	25,000	\$ 8.3000	\$ 207,500.00	3/20/2004	25,000	EXERCISED AS COMMON	\$	(207,500.00)
2	April 50 CALL	IDKDJ	4/17/2004	25,000	Assigned as common		3/18/2004	25,000	\$ 4.8000	\$ 120,000.00	\$ 120,000.00
3	January 45 PUT	IDKMI	10/18/2004	10,000	\$ 1.1500	\$ 11,500.00	9/16/2004	10,000	\$ 0.9000	\$ 9,000.00	\$ (2,500.00)
	January 45 PUT	IDKMI	1/22/2005	240,000	Expired worthless		9/16/2004	240,000	\$ 0.9000	\$ 216,000.00	\$ 216,000.00
	January 45 PUT	IDKMI	1/22/2005	10,000	Expired worthless		10/18/2004	10,000	\$ 1.1500	\$ 11,500.00	\$ 11,500.00
4	January 55 PUT	IDKMK	1/22/2005	13,500	Expired worthless		12/10/2004	13,500	\$ 0.3000	\$ 4,050.00	\$ 4,050.00
	January 55 PUT	IDKMK	1/22/2005	13,500	Expired worthless		12/10/2004	13,500	\$ 0.2500	\$ 3,375.00	\$ 3,375.00
5	March 55 PUT	IDKOK	2/28/2005	50,000	\$ 0.1000	\$ 5,000.00	1/27/2005	50,000	\$ 0.5000	\$ 25,000.00	\$ 20,000.00
	March 55 PUT	IDKOK	2/28/2005	30,000	\$ 0.1000	\$ 3,000.00	1/28/2005	30,000	\$ 0.6500	\$ 19,500.00	\$ 16,500.00
	March 55 PUT	IDKOK	2/28/2005	100,000	\$ 0.1000	\$ 10,000.00	1/28/2005	100,000	\$ 0.6500	\$ 65,000.00	\$ 55,000.00
	March 55 PUT	IDKOK	2/28/2005	75,000	\$ 0.1500	\$ 11,250.00	2/14/2005	75,000	\$ 0.4000	\$ 30,000.00	\$ 18,750.00
6	January 60 CALL	IHDAL	1/22/2005	50,000	Assigned as common		10/22/2004	50,000	\$ 3.9000	\$ 195,000.00	\$ 195,000.00
	January 60 CALL	IHDAL	1/20/2005	50,000	\$ 7.7000	\$ 385,000.00	10/22/2004	50,000	\$ 3.9000	\$ 195,000.00	\$ (190,000.00)
7	February 60 CALL	IHDBL	2/19/2005	37,500	Assigned as common		1/20/2005	37,500	\$ 8.4000	\$ 315,000.00	\$ 315,000.00
	February 60 CALL	IHDBL	2/19/2005	12,500	Assigned as common		1/20/2005	12,500	\$ 8.3000	\$ 103,750.00	\$ 103,750.00
8	March 65 CALL	IHDGM	2/28/2005	50,000	\$ 2.9000	\$ 145,000.00	1/27/2005	50,000	\$ 2.4000	\$ 120,000.00	\$ (25,000.00)
	March 65 CALL	IHDGM	2/28/2005	10,100	\$ 2.9000	\$ 29,290.00	1/28/2005	10,100	\$ 1.7000	\$ 17,170.00	\$ (12,120.00)
	March 65 CALL	IHDGM	2/28/2005	89,900	\$ 2.9000	\$ 260,710.00	1/28/2005	89,900	\$ 1.7500	\$ 157,325.00	\$ (103,385.00)
9	March 70 CALL	IHDGN	1/27/2005	50,000	\$ 0.7000	\$ 35,000.00	2/28/2005	50,000	\$ 0.3500	\$ 17,500.00	\$ (17,500.00)
	March 70 CALL	IHDGN	1/28/2005	100,000	\$ 0.4500	\$ 45,000.00	2/28/2005	100,000	\$ 0.3500	\$ 35,000.00	\$ (10,000.00)
10	April 65 CALL	IHDDM	2/28/2005	75,000	\$ 4.0000	\$ 300,000.00	2/14/2005	75,000	\$ 4.6000	\$ 345,000.00	\$ 45,000.00
11	April 70 CALL	IHDND	2/14/2005	75,000	\$ 2.0000	\$ 150,000.00	2/28/2005	75,000	\$ 1.5000	\$ 112,500.00	\$ (37,500.00)
12	May 60 CALL	IHDEL	5/21/2004	300	\$ 0.8000	\$ 240.00	5/22/2004	300	Exercised as common		\$ (240.00)
	May 60 CALL	IHDEL	5/21/2004	25,000	\$ 0.9500	\$ 23,750.00	5/22/2004	25,000	Exercised as common		\$ (23,750.00)
	May 60 CALL	IHDEL	5/21/2004	4,700	\$ 0.8000	\$ 3,760.00	5/22/2004	4,700	Exercised as common		\$ (3,760.00)
13	June 60 CALL	IHDFL	6/19/2004	25,000	Expired worthless		5/21/2004	25,000	\$ 3.4000	\$ 85,000.00	\$ 85,000.00
	June 60 CALL	IHDFL	6/19/2004	5,000	Expired worthless		5/21/2004	5,000	\$ 3.3000	\$ 16,500.00	\$ 16,500.00
14	October 65 CALL	IHDJM	9/13/2004	25,000	\$ 1.0000	\$ 25,000.00	10/16/2004	25,000	Expired worthless		\$ (25,000.00)
15	November 60 CALL	IHDKL	11/20/2004	20,000	Expired worthless		9/22/2004	20,000	\$ 3.5000	\$ 70,000.00	\$ 70,000.00
16	November 65 CALL	IHDKM	9/22/2004	20,000	\$ 1.3500	\$ 27,000.00	11/20/2004	20,000	Expired worthless		\$ (27,000.00)
17	January 60 PUT	IHDML	1/22/2005	20,000	Expired worthless		12/13/2004	20,000	\$ 0.6500	\$ 13,000.00	\$ 13,000.00
18	January 65 PUT	IHDMM	12/13/2004	20,000	\$ 2.0000	\$ 40,000.00	1/21/2005	20,000	\$ 0.1500	\$ 3,000.00	\$ (37,000.00)
19	March 60 PUT	IHDOL	1/27/2005	50,000	\$ 1.2500	\$ 62,500.00	2/28/2005	50,000	\$ 0.0500	\$ 2,500.00	\$ (60,000.00)
	March 60 PUT	IHDOL	1/28/2005	100,000	\$ 1.6000	\$ 160,000.00	2/28/2005	100,000	\$ 0.0500	\$ 5,000.00	\$ (155,000.00)
20	April 60 PUT	IHDPL	2/14/2005	75,000	\$ 1.0500	\$ 78,750.00	2/28/2005	75,000	\$ 0.4500	\$ 33,750.00	\$ (45,000.00)
21	November 60 PUT	IHDWL	11/8/2004	21,600	\$ 1.0500	\$ 22,680.00	11/20/2004	21,600	Expired worthless		\$ (22,680.00)
Total Gain										\$	303,490.00